

DELHI UNIVERSITY
LIBRARY

58

Accession No.

Date of release for loan

This book should be returned on or before the date last stamped below. An overdue charge of 10 Paise will be collected for each day the book is kept overdue.

[illegible]

**INTERNATIONAL
COMBINES IN
MODERN INDUSTRY**

ALSO BY ALFRED PLUMMER

**NEW BRITISH INDUSTRIES
IN THE TWENTIETH CENTURY**

A Survey of Development and Structure.
In demy 8vo, cloth gilt, 396 pp., illustrated. 15s. net.

"The work is well documented, and the study of the industries themselves exceedingly well done."—*London Chamber of Commerce Journal*.

"A valuable book for the student of economic and social history."—*A.M.A.*

"A valuable addition to the economic history of modern Britain."—*Times Literary Supplement*.

EXERCISES IN ECONOMICS

A supplementary textbook for class or private use, containing a large number of frequently recurring questions with model solutions.

In demy 8vo, cloth, 85 pp. 2s. Second Edition

"A volume which contains a surprising amount of information carefully arranged and carefully printed."—*Scottish Educational Journal*.

"This is a stimulating and suggestive little book."—*Schoolmaster*.

"The author has adopted a method which makes economics interesting even to the uneconomic mind."—*Plebs*.

Sir Isaac Pitman & Sons, Ltd., Parker St., Kingsway, London, W.C.2

INTERNATIONAL COMBINES IN MODERN INDUSTRY

BY

ALFRED PLUMMER

B.Litt., M.Sc. (Econ.), LL.D.

HEAD OF THE DEPARTMENT OF COMMERCE AND SOCIAL STUDIES
IN THE SOUTH-WEST ESSEX TECHNICAL COLLEGE



SECOND EDITION

LONDON
SIR ISAAC PITMAN & SONS, LTD.

1938

SIR ISAAC PITMAN & SONS, LTD.
PITMAN HOUSE, PARKER STREET, KINGSWAY, LONDON, W.C.2
PITMAN HOUSE, LITTLE COLLINS STREET, MELBOURNE
THE PITMAN PRESS, BATH

ASSOCIATED COMPANIES

PITMAN PUBLISHING CORPORATION

2 WEST 45TH STREET, NEW YORK
205 WEST MONROE STREET, CHICAGO

SIR ISAAC PITMAN & SONS (CANADA), LTD.
(INCORPORATING THE COMMERCIAL TEXT BOOK COMPANY)
PITMAN HOUSE, 381-383 CHURCH STREET, TORONTO

PREFACE

TO THE SECOND EDITION

THE four years that have passed since the publication of the first edition of this book have brought some remarkable changes in world affairs. Stocks of staple commodities have decreased, prices have risen, and the great slump has gradually given place to a business revival; but, at the same time, the last flickering hopes of international peace in the present or near future have been extinguished. Because of these two great changes—the first, most welcome; the second, utterly deplorable—it has been necessary to include in the present edition a good deal of supplementary matter on the actions and fortunes of the international cartels controlling raw materials in the improving economic conditions of the past four years, and on the armament combines now flourishing exceedingly on the fruits of international insanity. A place has been found also for some other recent and important developments, such as the formation of new international cartels to control coke and kraft paper, the adhesion of the British steel manufacturers to the International Steel Cartel, and the arrangement of international agreements between air transport companies.

The more one studies this subject, the more one is impressed by the number and variety of international combines, and the wide extent of their activities in the modern world.

A. P.

SUTTON COLDFIELD
June, 1938

PREFACE

TO THE FIRST EDITION

AS soon as one seriously begins to gather the materials for a book on International Combines the scarcity of general works on this subject ceases to be a mystery. It would not be easy to trace the remarkable ramifications of international combines of all kinds even if abundant sources of information were available ; but, as it is, the task is made doubly difficult by the paucity of materials. Even the experts employed by the League of Nations have not yet been able satisfactorily to surmount this obstacle. Moreover, many of the looser international combines are, as yet, so unstable and impermanent that they are dissolved, modified, reconstituted and, perhaps, dissolved again even as one writes ; while the majority of the more closely-knit international concerns and trusts do not choose to "tell the world" very much about themselves and their operations.

A. P.

RUSKIN COLLEGE
OXFORD

CONTENTS

PREFACE TO THE SECOND EDITION	PAGE V
PREFACE TO THE FIRST EDITION	vi

CHAPTER I

INTRODUCTORY SURVEY	I
-------------------------------	---

Free competition and scarcity as assumptions in economic theory—Planning not necessarily governmental—International capitalistic organizations—International combines in the nineteenth century and the early years of the twentieth century—The Neckar Salt Union—The Nobel Dynamite Trust—The chemical industry—Borax Consolidated—Cement and powder—"Sofina"—Iron and steel products—Oil—Incandescent lamps—Glass bottles—I.R.M.A.—The effects of the outbreak of war in 1914—Post-war progress of international combines—The cartels of Central Europe—Is the movement becoming more comprehensive and monopolistic?

CHAPTER II

TYPES OF INTERNATIONAL COMBINES	18
---	----

A rough classification—The characteristics of international cartels—Cartels of producers of staple commodities—Conditions essential to their success—Coffee—Rubber—Sugar—The Chadbourne Plan—The Sugar Agreement of 1937—Tin—The characteristics of "concerns"—And of international trusts—The holding company method—The artificial silk, or rayon, industry—Courtaulds and associated companies—The electricity supply industry—The Du Pont de Nemours concern—General Motors—The international metal combine—The Unilever combine—Sundry other international concerns—International trusts and "international businesses" compared—Ivar Krueger and the Swedish Match Co.—The Ford Motor Co.—Dunlop—Turner & Newall, Ltd.—The electrical manufacturing industry—Telephones and telegraphs—Cables and Wireless, Ltd.—Imperial Chemical Industries—Sewing cotton—Rolls-Royce, Woolworth, and Debenhams

CHAPTER III

FORMATION (I): AIDS AND INCENTIVES	62
--	----

"Causes" or initial impulses—Conditions favourable to the formation of international combines—The Shipping Rings or Conferences—The International Linoleum combine—

Calcium carbide—Petroleum—International buyers' combines—The Association of Bone-glue Manufacturers—The International Federation of Master Cotton Spinners' and Manufacturers' Associations—The International Scrap Convention—The Bismuth Syndicate—The Convention Internationale des Glaceries—International Nickel—The Aluminium industry—The tobacco combines—The Convention for the Development and Progress of the International Electric Lamp Industry—The British Thomson-Houston Co.—Aniline dyes—National combines or groups and the formation of international combines—The potash industry—The European Mercury Consortium—The nitrate industry—The International Steel Cartel—Tin restriction, stocks, and prices—The problem of stabilization—The International Tea Cartel—The Wheat Agreement—State action and international combines—Sulphur—Zinc—Tariff-bargaining and the Steel Cartel—International Conferences and Trade Associations

CHAPTER IV

FORMATION (II): OBSTACLES 129

The obstacles to the formation of national and international combines are similar—The problem of the coal trade—Disparities in conditions and costs of production—All producers not equally interested—National laws and international combines—The attitudes of various States

CHAPTER V

MARKETS, TARIFFS, AND QUOTAS 145

Possible conflicts between national public policy and international private arrangements—The British dyestuffs industry and the international dyestuffs agreement—Reservation of the home market—Do international combines make protective tariffs unnecessary?—Effects of changes in tariff policies—Steel and copper—Export markets or non-reserved territories—Quotas: their negotiation and revision—Loyalty and discipline within international combines—Steel rails—The International Aniline Convention—The International Tube Cartel—Quebracho—Mercury—The International Steel Cartel and the vexed question of quotas—Fines and compensations—Aluminium, wagons, and tin

CHAPTER VI

EFFECTS AND TENDENCIES 182

International combines, the working classes and the intermediate consumers—Arguments for the combines—Prices and output—The consumers' defences—The policy of preserving the high-cost producers—Competition, potential and actual—The "competition of substitutes"—Synthetic

substances—Illustrations from the nitrate, rubber, zinc, mercury and copper industries—Do international combines impart stability of prices?—The combines and the wage-earners—Wages—Employment—The trade unions—International trade unionism

PAGE

CHAPTER VII

FUTURE PROSPECTS 208

Are international combines to be condemned or encouraged?—Can they be controlled?—They would gain from a closer approximation of purchasing power and consuming power among consumers—Agriculture is the key—Imperial cartelization—Modern international economic organization is ahead of political organization—The international combines and the New Age—They may contribute to world peace—Especially international combines operating air transport services—But the international combines of armament manufacturers tend strongly in the opposite direction

APPENDICES: DOCUMENTS AND NOTES RELATING TO INTERNATIONAL COMBINES AND INTERNATIONAL TRADE UNIONISM 247

BIBLIOGRAPHY 293

INDEX 298

INSET

THE VICKERS COMBINE *facing page 236*

INTERNATIONAL COMBINES IN MODERN INDUSTRY

CHAPTER I

INTRODUCTORY SURVEY

AT least two of the assumptions of classical economics can no longer be retained. In the first place, the assumption that free competition is the rule, to which combines and monopolies are but occasional exceptions, has steadily become less and less satisfactory as actual competition has diminished during the past half-century. To-day, economists are compelled to admit and discuss the existence of wide fields wherein "imperfect competition," especially between sellers, has become the normal condition¹: a situation in which a single producer, or combined group of producers, sells such a high proportion of the total output as to affect appreciably the flow of supplies and, therefore, the trend of prices. Combination and the elimination of competition is no longer universally regarded as a malpractice.² In the second place, the assumption that scarcity is the rule and plenty the exception can hardly have general application in a world so obviously possessing vast productive capacity and so often oppressed by abundance. Indeed, it is the advent of abundance which, having first produced bouts of intense competition, has afterwards resulted in a desire for more orderly and peaceful planning

¹ E.g. see J. E. Meade, *An Introduction to Economic Analysis and Policy* (1936), Part II.

² Cf. H. Levy, *The New Industrial System* (1936), pages 49 *et seq.*

of production and marketing; for the conscious balancing of producers' outputs and consumers' demands. The "need for economic planning" has been widely discussed in recent years.¹ But planning and control from the centre is not, after all, a very new idea; nor does it always and necessarily take the form of *governmental* or state planning and central control. There may be—and in fact there has been in the near past—an increase of economic planning and central control, not by governments, but by huge capitalistic organizations, not a few of which are international in scope, their planning being limited only by the confines of the habitable world. Within the last thirty or forty years international organization has made new departures in the economic as well as the political sphere. Great industrial, commercial, and financial organizations have begun to operate on an unprecedentedly colossal scale, extending their complex network of activities even to the ends of the earth. Dr. Liefmann refers to these organizations, especially the great international ones, as the "high spot" of modern capitalism, "of the spirit of enterprise which exploits all technical achievement for the purpose of gain, the system to which the modern world has entrusted the satisfaction of its needs."²

Various words are commonly used to describe the forms of international industrial organization with which this book deals—cartel, combine, concern, consortium, convention, conference, trust, syndicate, ring, association, industrial agreement, and so forth. But the list is not really so formidable as it looks, because several of the terms are, for all practical purposes, synonymous. We shall shortly go into details, but, for the sake of convenience and to avoid confusion, all forms of international combination, whether loosely or closely knit, and whatever their special features or peculiarities, will be referred to here

¹ Cf. Article by P. T. Homan in *Quarterly Journal of Economics*, November, 1932, pages 102–22.

² Liefmann, *Cartels, Concerns and Trusts* (1932), page 6.

and throughout the succeeding chapters as international combines.

Owing to economic nationalism, differences in industrial standards of different countries, and the difficulties of exercising effective control over great distances, the international combine movement has lagged behind the rise and development of national combines. Although a few roots reach back into the nineteenth century, the various forms of international combinations to be seen in the world to-day may fairly be described as very largely twentieth-century products. In 1897, Dr. Robert Liefmann found some forty different international combines of various kinds in which German interests participated,¹ the other parties being, as a rule, either British, French, Belgian, or Austrian. At the end of the first fourteen years of the present century, 114 international combines were known to be in existence, and doubtless there were also many secret organizations, "gentlemen's agreements," and so forth, not included in this total. The known combines were distributed among different industries as follows²—

Coal, ores, and metals	26
Chemical and allied	19
Transportation	18
Textiles	15
Stoneware and porcelain	8
Paper	7
Stones and earths	6
Electrical	5
Miscellaneous	10

These combines aimed at a variety of objects, all characteristic of international combines before and since, viz. preservation of an undisputed internal or "home" market for each national group; division and delimitation of export markets or "sales territories"; suppression of price-cutting; "regulation" of prices; exchange of patents and technical knowledge; standardization and reduction of redundant

¹ R. Liefmann, *Die Unternehmervverbände, Konventionen, Kartelle* (1897), Chapter I.

² W. Notz in *Journal of Political Economy*, October, 1920, page 659; quoting B. Harms, *Probleme der Weltwirtschaft* (1912).

varieties; concentration of production; elimination of inefficient plants; concerted regulation and restriction of output; and joint purchase of materials.

The earliest near approach to an international cartel yet discovered is the large, but ultimately unsuccessful, international organization to control the production and marketing of alum, built up by Sir George Colebrooke and his associates in 1771-3.¹ More recently we have the Neckar Salt Union, formed in 1828 between salt works in the States of Württemberg, Baden, and Hesse, which, after 1867, had agreements with the Eastern French Salt Works syndicate.² In 1886, Nobel Dynamite Trust Co., Ltd., was formed. According to Dr. Liefmann, "It comprised at first two (later three) English companies, four (later six) German companies, and one company each in Switzerland, Mexico, and Brazil. The Nobel Trust entered into agreements with the Société Centrale de la Dynamite in Paris." The Société Centrale was itself a holding company, organized in 1887 to unite French, Italian, Spanish, and Swiss manufacturers. Later, the Nobel Trust made an agreement with the German cartel of gunpowder factories, "thus attaining a monopolistic position which spread beyond the borders of Europe."³

As examples of "solidly organized international syndicates" in the chemical industry, Dr. Liefmann cites the Bismuth Syndicate (formed in the eighteen-seventies), the Borax Syndicate, the Acetic Acid Syndicate, the Carbide Syndicate, and the cartels in the explosives industry; and he adds that there were also international cartels of producers of porcelain, table glass, watch glass, and enamelled ware.⁴ Borax Consolidated, Ltd., was formed in 1899, and rapidly acquired six undertakings which owned deposits in the United States, South America, and Asia Minor, and factories in the United States, France, and the United

¹ See article by L. Stuart Sutherland in *Economic History*, February, 1936, pages 237-58.

² Liefmann, *Cartels, Concerns, and Trusts*, pages 21-2, 148.

³ *Encyclopaedia of the Social Sciences*, vii, page 410.

⁴ Liefmann, *Cartels, Concerns, and Trusts*, pages 150-1, 158.

Kingdom. It extended its ramifications further within those countries by acquiring controlling interests in other companies, and so eventually gained virtual control of the world market. The combine's position was particularly strong in relation to countries having a large consumption but no deposits. "Recent reports indicate: (1) that a new process of recovering borax from kernite will revolutionize the industry, this method being much cheaper than recovery from brine or from mineral deposits around Death Valley; (2) that the United States remains the chief source of world supply; (3) that the predominant producing interests are still British, the American Potash and Chemical Corporation (producing from brine) being a subsidiary of the New Consolidated Gold Fields of South Africa (a London concern); and the Pacific Coast Borax Company (producing from kernite) being a subsidiary of the Borax Consolidated Ltd. of London."¹

In the cement industry, Belgian, German, English, Swedish, Danish, and Norwegian syndicates combined in order to divide foreign markets and regulate prices. The International Powder Agreement between British, German, and American interests, for the purpose of limiting competition and dividing markets, dated from 1897.² The Belgian Société Financière de Transports et d'Entreprises Industrielles ("Sofina") was originally founded in 1898 by the Gesfürel-Loewe concern (Gesellschaft für electrische Unternehmungen-Ludw. Loewe & Co. A.-G.). After the acquisition of the Gesfürel undertakings by the A.E.G. in 1903, Sofina became part of that company's extensive international network of holding companies; but the war of 1914-18 severed the links between the German and Belgian concerns. Before the War, the economic interdependence of the iron and steel industries of France, Belgium, Luxemburg, and Germany gave rise to sundry

¹ Donaldson, *International Economic Relations* (1929), page 324.

² Balfour Committee on Industry and Trade, *Factors in Industrial and Commercial Efficiency* (1927), page 113.

international financial links between undertakings in those countries, and the formation of a number of international cartels, generally between German, French, Belgian, and Austrian producers, covering steel rails, tubes, screws,¹ galvanized steel, rods, and wire nails.² In the wire-netting industry an agreement between British and German manufacturers was concluded in 1906 and lasted until the outbreak of war in 1914. The Committee on Industry and Trade stated that "discussions regarding a renewed international agreement" have since been revived, "but, it is understood, without results."³ Dr. Fitzgerald, however (writing in 1927), asserted that "in the (British) wire-netting trade, in which there are about twenty firms, there is a fairly stable association, which not only controls the bulk of the home trade, but is (since June, 1926) closely allied with the German, Belgian, and French associations under an agreement which provides that the latter shall not export to England below certain minimum prices."⁴

If we turn to the oil industry we find that international organization has been a feature from the beginning. The Royal Dutch Petroleum Company, for example, and the Shell Transport and Trading Company, Ltd., have been in close combination since 1907 in the production and marketing of petrol and oil. Besides the British and Dutch shareholders in this combine, French and American investors acquired holdings of its stock. The original centre of its operations was the Dutch East Indies, but its activities soon spread. It acquired oilfields and refineries in other countries and steadily built up a wide-flung distributing organization,⁵ so that to-day it has important interests in

¹ Balfour Committee on Industry and Trade, *Survey of Metal Industries* (1928), page 79.

² *Factors in Industrial and Commercial Efficiency*, page 111.

³ *Survey of Metal Industries*, page 36.

⁴ Fitzgerald, *Industrial Combination in England*, page 52; quoting *The Ironmonger*, 26th June, 1926, and 14th July, 1926. The Iron and Steel Manufacturers' Association refused to give any information regarding the position in 1934.

⁵ *Factors in Industrial and Commercial Efficiency*, pages 113-4.

oil undertakings throughout the world, and controls approximately 10 per cent of world production. In conjunction with the Anglo-Persian Oil Company and the Deutsche Bank, the Royal Dutch Shell combine acquired the Turkish Petroleum Company,¹ now called the Irak Petroleum Company.² Its American subsidiary, the Shell Union Oil Corporation, has recently made considerable headway in the United States market, while as regards oil distribution in India, China, and other eastern countries, the Royal Dutch-Shell and the Anglo-Persian-Burma groups are as one. In Great Britain these companies market their products through a common organization known as Shell Mex and B.P., Ltd.

Of the great Standard Oil trust, Dr. Liefmann writes—

The Oil Trust . . . has extended its influence over the whole world. In China it has made large advances of money to the Government in return for valuable concessions. In Mexico, where it has been engaged in a struggle with British capitalists for the control of the oil-bearing lands, it has been at times one of the principal instigators of the civil disturbances there. In Germany it attempted to defeat by force the plan of an oil monopoly aimed against it. Wherever oil is discovered it tries to create a sphere of influence; it has branches and subsidiary companies in more than fifty countries, and, in addition, its principal shareholders have invested their vast profits in the most various branches of American industry, notably in mines and railroads.”³

The number of companies controlled is over 500, and the total capital involved is estimated at approximately £1,000,000,000. All the largest and most powerful groups of oil refining companies in France are either controlled by the Standard Oil Company, or closely associated with the Anglo-Persian Oil Company, the Royal-Dutch Shell

¹ Knight, Barnes, and Flugel, *Economic History of Europe* (1927), pages 666-7.

² *Economist*, December, 1932, pages 1220-30.

³ *Cartels, Concerns, and Trusts*, page 5. The English subsidiaries of the Standard Oil Company of New Jersey are the Anglo-American Oil Co., Red Line Motor Spirit Co., and Glico Petroleum Co.

combine, and the Vacuum Oil Company.¹ In June, 1936, the Standard Oil Company of California and the Texas Corporation made an agreement under which the latter distributes all oil produced by subsidiaries of the Standard of California east of the Suez Canal. This agreement covers the whole of the Bahrein oil and the oil discovered by the Californian Arabian Standard Oil Company in Saudi-Arabia. These supplies are marketed eastwards through the Texas Corporation's extensive distributing organization in India, China, Japan, Indo-China, the East Indies, Australia, New Zealand, and the Philippines. In association with the Anglo-Persian Oil Company (in which the British government is a very large shareholder) and the Royal Dutch Shell combine, the Standard Oil trust has now entered into relations with the various German companies and groups, including the I.G. Farbenindustrie, that are trying to utilize certain German patents for the extraction of oil from coal.

The production of oil fuel from coal by the Bergius process² has been carried on by the I.G. Farbenindustrie since April, 1927, and in August of that year the German combine made an agreement with the Standard Oil Company to exploit the process jointly. The finance was supplied by Deutsche Gasolin A-G., a company owned by I.G. Farbenindustrie, Standard Oil Company, and the Shell Oil group.³ The world rights in Dr. Bergius's process for the direct hydrogenation of coal are held by International Hydrogenation Patents, Ltd., formed in 1930 at the Hague by agreement between Imperial Chemical Industries, the Shell Mex Company, the Standard Oil Company, and I.G. Farbenindustrie.⁴

¹ Department of Overseas Trade, Report of Sir R. Cahill on *Economic Conditions in France* (1934), pages 159, 162, 172-3.

² On this, and the low temperature carbonization process, in relation to British industry, see Plummer, *New British Industries in the Twentieth Century* (1937), Chapter VI.

³ D. Warriner, *Combines and Rationalization in Germany* (1930), page 178.

⁴ I. Thomas, *Coal in the New Era* (1934), page 107.

The International Incandescent Lamp Cartel was originally a sales syndicate comprising all the producers of Germany, Austria-Hungary, Holland, and Switzerland. Dissolved in 1913, it was revived after the War in a somewhat looser form, but with the addition of the producers of England, France, Italy, Scandinavia, Japan, and the United States. Another large and typical pre-war international combine was the International Glass Bottle Association, formed in 1907. Its chief object was the joint purchase of the rights to use the patents covering the Owens automatic bottle-making apparatus, whereby machine methods were substituted for the old glass-blowing processes.¹

An arrangement was made in 1907 between the British manufacturers who were shareholders in the Europaischer Verband der Flaschenfabriken (the purchaser of the European patent rights) and the Continental shareholders, whereby the Continental companies undertook not to sell in this country at prices under those fixed by the British price-fixing association—the Association of Glass Bottle Manufacturers of Great Britain and Ireland. British manufacturers similarly agreed not to undersell Continental companies in their own countries.

A further arrangement was arrived at, before the War, with the Europaischer Verband der Flaschenfabriken, under which, in view of the depressed state of the industry, the output of the Owens machines was to be strictly limited at first, and afterwards gradually increased.²

Another outstanding example was the International Rail Makers' Association.

A Steel Rail Makers' Association of Great Britain was formed in 1884 and as a result of negotiations with the rail-makers of Germany and Belgium, the only two important exporting countries at the time, an International Association was formed with the object of dividing all export orders for

¹ It was alleged that this combine tried to force non-combine firms to join by underselling them or threatening to do so.

² *Factors in Industrial and Commercial Efficiency*, page 112.

steel rails, each national group undertaking not to quote for work for use in the countries of the other groups. This agreement continued until about the middle of 1886, and then lapsed with the termination of the British combination. In January, 1896, the present British Rail Makers' Association was formed, and in 1904 it entered into negotiations with the German and Belgian Steel Rail Makers who had just established central selling organizations, and an agreement was reached, to which the French makers were also parties, in the latter part of that year. Under this agreement each group retained the exclusive right to its own home markets, and the export trade was allocated in certain definite proportions between the four national groups, the French being guaranteed a minimum tonnage.¹

Besides these typical international combines there were a few special or peculiar arrangements, such as the international syndicate of banks, formed at the beginning of the twentieth century, and backed by their respective governments, for the purpose of making loans to China. Originally this combine included a group of American banks, but these were forced to withdraw.²

The outbreak of war in 1914 practically put an end to the international combine movement for the time being, because it severed economic relations between the countries in which the component parts of all the most important international combines were domiciled. From the shade of this great international eclipse the business world as a whole did not begin to emerge for several years after 1918. But when it did, international combines soon became important again and resumed their places in the general movement, which is as yet still in its early stages. Many international combines which existed before the War have been revived, and many new ones have been formed under impulses and in circumstances which will be discussed later. Thus a British official report, written in 1921, refers to "a recently formed organization known as the Nitrate Pool, which embraces

¹ *Report of the Committee on Trusts* (Cmd. 9236, 1919), pages 40-1. The subsequent history of the I.R.M.A. is outlined in Chapter V.

² Jenks and Clark, *The Trust Problem* (fourth edition, 1922), page 55.

practically all the European importers of nitrate of soda," with the object of regulating the sales of unusually large stocks.¹ In 1927 the Committee on Industry and Trade remarked that the "enamel ware cartel has been re-formed; a cartel in the form of a price convention of the principal European countries producing wood screws has been set up; and an arrangement has been concluded between Belgian and German producers of rolled wire to refrain from competing in each other's home market."² It must be remembered, however, that some of the new international combines really existed previously as national combines, and have been made international by the drawing of new frontiers since 1918. Dr. Liefmann remarks upon the crop of international cartels, which have come into existence since the end of the War, between Austrian producers and those of the various succession states in Europe, c.g. Czechoslovakia, Hungary, and Poland, notably in the iron and steel, pottery, and cement industries. Moreover, "to some extent former financial connections have been kept up by means of holding companies domiciled in Switzerland."³ Professor Elèmer Hantos, a former Hungarian Secretary of State, who has made a special study of the cartels of Central Europe, says—

Central Europe is the classical ground of international cartels. While in other parts of the world cartels have been formed as an emergency measure by the pressure of industrial depression, there is still another, not less important, cause of their creation in the new Central Europe: the structural changes which the once united economic territories have undergone. In post-war Central Europe international cartels owe their existence to a large extent to the endeavour of the manufacturers to correct political facts with regard to their economic effects. The Central European cartels are designed to bring into closer union the productive and selling activities of economic territories now disrupted by tariff barriers.

¹ *Report on the Explosives Industry by a sub-committee of the Committee on Trusts* (Cmd. 1347, 1921), pages 10-11.

² *Factors in Industrial and Commercial Efficiency*, page 111.

³ *Cartels, Concerns, and Trusts*, page 153.

Dr. Hermann Levy, the well-known authority on industrial combination, comments as follows—

While we cannot agree with the contention of Prof. Hantos that industrial combination in other parts of the world is mainly due to "economic depression," he is certainly right when he describes Central European cartels and syndicates as being largely the outcome of post-war political decisions which did not have due regard for the economic exigencies of the former frontiers. The cartels and syndicates in question, which can be justly styled as "Central European," relate to agreements between manufacturers or their associations in various States, especially Germany, Austria, Czechoslovakia, Poland, but according to Prof. Hantos they may also include Yugoslavia, Rumania, and other Balkan States. Among these cartels there are agreements, in which most producers in the Central European States have become partners. Thus the Central European group of ironworks (Alpine Montan-Rima-Czechoslovakian works) joined the Rohstahlgemeinschaft of the Western European States in 1927; there are agreements between the Austrian, Hungarian, and Czechoslovakian steel-plate works, which again have made an agreement with German producers not to invade their respective territories; and there is a Central European group of cartelized producers within the international wire-rod syndicate. There is a Central European syndicate for the production of ferro-silicum, of which German, Austrian, and Yugoslavian producers are members. In July, 1929, a Central European glass and porcelain syndicate was formed, of which, besides many other Central European States, Germany became a partner. An association fixing certain selling arrangements, the allocation of by-products and the purchase of raw material was formed in the glue industry between producers of Germany, Austria, Hungary, Poland, Czechoslovakia and Rumania. . . . Besides these cartels embracing most of the Central European industries of one branch, there are a great number of others between two countries only, as for instance the gas-coke or the cement agreement and many important arrangements in the iron and steel, the electrical and chemical groups of industry between Germany and Austria. The same relates to a good many arrangements between German and Czechoslovakian producers. While these arrangements are in general formed for the purpose of protecting the home market by a mutual

agreement about competition or even excluding competition by "Gebietsschutzabkommen" (agreements to safeguard territorial sales), there are others, which relate to competition in non-Central-European markets, while the industries concluding the agreements are mainly situated in Central Europe. There are for instance arrangements in the paper trade (Rotationspapier-Abkommen), by which German manufacturers have renounced their liberty of selling to the Balkan States, where markets are left to Austrian and Czechoslovakian exporters. There is also a convention regulating the sale of felt hats in the Balkan markets, in which Germany, Austria, and Czechoslovakia are partners besides other European manufacturers. There can be no doubt that affinities of economic geography such as those existing within the Central European States, especially those of the Austro-Hungarian succession States, may facilitate cartelization, especially where industrial combination of some sort or other had been developed before the peace treaties.¹

The post-war progress of international combines has been largely stimulated by the remarkable and abnormal increase in productive capacity in so many industries and countries, owing to the tremendous stimulus given by the War, coupled with a striking acceleration of the rate of scientific and technical progress. The result has been the intensification of international competition, or the danger and fear of it, which has driven producers into international combines.

With relatively few exceptions (e.g. electrical products) international combines deal, or have dealt, so far, chiefly with raw materials and basic manufactures, such as nitrate, potash, raw steel, steel tubes, and rails; that is to say, with those branches of industry whose products are supplied in bulk or in a few recognized grades. But there are signs that the movement is now on the point of becoming more comprehensive, and, given experience and the accumulation of knowledge regarding this branch of modern economic

¹ H. Levy, *Industrial Germany* (1935), pages 105-7, quoting Hantos, *Mitteleuropäische Kartelle im Dienste des industriellen Zusammenschlusses* (1931).

organization, the difficulties in its way do not appear to be insuperable. This opinion may alarm many who are in the habit of assuming that international combines are necessarily monopolists, or very nearly so. It is true, as Dr. Levy says, that "cartels, trusts, syndicates and associations have been arising in almost every part of the world as a new form of concentrative organization of industry," but his assertion that "we live once again in an epoch of industrial monopolies" is too sweeping.¹ While a great many combines are monopolistic in tendency, in fact they do not all achieve monopolistic or even quasi-monopolistic positions. A combine can be international, yet not exercise control over a substantial proportion of the output of a certain region, or of the world. Thus, General Motors Corporation owns motor car plants in America, Great Britain, and Germany, but it does not dominate the motor car industries of any of those countries. The British Sulphate of Ammonia Federation is an association of firms controlling over 90 per cent of the British output. "It is a private company 'limited by guarantee and having no share capital.' Membership is open to all manufacturers within the United Kingdom and the Empire who produce a specified quantity of sulphate of ammonia. General management and control is vested in a 'Council' and an 'Executive Committee', the former being given absolute power to decide the membership of the company."² The membership now embraces producers in South Africa, Canada, and Australia, and a great many of the makers in India. Nor does its activity stop at the confines of the British Empire, for industrial agreements have been made with similar associations in Germany, France, Belgium, Holland, Italy, and Japan. Nevertheless, these associations do not include all the producers either in their respective countries or in the world. Moreover, another even greater obstacle to the creation of a monopoly exists in the competition of rival fertilizers,

¹ *The New Industrial System* (1936), page 47.

² Fitzgerald, *op. cit.*, pages 85-7.

such as natural nitrate of soda.¹ The production of lead is in the hands of three chief groups, namely, the United States group, which produces approximately 28 per cent of world output; the British Empire group, producing approximately 25 per cent,² and the Mexicans, who produce 16 per cent. The agreements binding the International Association of Lead Producers were concluded in 1928 for four years. In June, 1932, they were provisionally renewed pending the outcome of fresh negotiations. The cartel included producers in the British Empire, the Dutch East Indies, and Mexico; but there remained outside it the United States group of producers as well as those of continental Europe. There was thus no approach to a monopolistic position with control of world output and prices. But in trying to form the new international cartel, efforts were made to secure the participation of the German, Spanish, and Italian producers,³ and these approaches may bear fruit at some future time.

The organization of the tin industry, on the other hand, shows very strong monopolistic tendencies. The production of raw tin is controlled, as we shall see later, by a powerful international cartel. In the smelting section of the industry, although a small amount of tin smelting is done in China, Australia, and Europe, something like three-quarters of the world's output is smelted by two British companies, which own between them all the works in Great Britain, Penang, and Singapore. Thus, not only does the British Empire produce 45 per cent of the world's output of raw tin, but through these two companies the British have a powerful, quasi-monopolistic position in the smelting section.⁴

There may, of course, be competition between two or more international combines in the same industrial field; but the larger and fewer these international groupings become, the greater grows the probability that one day they will conclude an agreement which will terminate all

¹ We shall return to this point in Chapter III.

² The British Empire is now a net exporter of lead.

³ *Manchester Guardian Commercial*, 6th August, 1932, page 122.

⁴ J. W. F. Rowe, *Markets and Men* (1935), page 158.

competition between them. At present it may be said that the majority of international combines are limited in scope, and many of them are very loosely knit together. Important and powerful industrialists, although they may be willing to associate with others, do not readily surrender their autonomy in its entirety. Moreover, their undertakings do not grow at a uniform rate: some advance rapidly, others slowly, others not at all; so that no alliance or similar arrangement can be final. Constant readjustments are necessary if the combine is to continue. Also, scientific and technical progress, so rapid and widespread in the modern world, is always a disturbing factor, making for impermanence. There are, in fact, very few international combines which really comprise all the more important producers, possess a monopoly in the world market, and are, at the same time, closely associated in a tolerably permanent manner. Some, however, have succeeded in establishing and maintaining "virtual" monopolies, although they have been less successful in achieving closeness of organization. There is, for instance, an International Cyanamide Syndicate in which German interests predominate, but which includes factories in France, Italy, Belgium, Yugoslavia, Czechoslovakia, Sweden, Norway, Switzerland, and Poland. This syndicate controls 92 per cent of total world output, of which the German share is more than two-fifths. Before the War the International Quinine Agreement divided up "territories" amongst the American, British, Dutch, French, and German companies who were members of the combine, and specified (*inter alia*) that American and French producers should not sell in Great Britain, and the British company should not sell in France or the United States. But since the War the British interests have considerably extended their sphere of trading. Since approximately 95 per cent of the world output of cinchona bark comes from Java, the agreement between the European manufacturers and the Java growers amounts to a virtual world monopoly. The magnesia industry furnishes another example. Only

1 per cent of the magnesia-producing firms of Austria, Germany, Czechoslovakia, England, and Italy are outside the international magnesia combine, led by Veits Magnesia Works Company of Vienna. The International Mirror-glass Syndicate comprises nearly all the European makers of mirror-glass. Aided by the existence of financial concentration in the industry, the Syndicate is now "probably the most firmly organized international cartel to be found in any industry."¹

¹ Liefmann, *Cartels, Concerns, and Trusts*, pages 105, 149.

CHAPTER II

TYPES OF INTERNATIONAL COMBINES

It is exceedingly difficult to classify satisfactorily the various types of international combines, and some, indeed, defy classification: but at least we can begin by defining the line which divides (1) International Cartels (including International Output Agreements) from (2) International Concerns, Trusts, and Holding Companies (including National Combines with international ramifications).

A distinction must be drawn between "cartels of conditions," such as international agreements regarding standardization of products, exchange of patent rights and information, or the conditions of trading, and those which regulate output, sales and prices.¹ Standardization, co-operative research, and similar arrangements help to increase efficiency and economy, and therefore little or no objection can be raised to "cartels of conditions," unless patents are deliberately acquired and put into "cold storage" to keep them from producers not in the cartel, or similar policies, advantageous to the private interests concerned but against the public interest, are pursued. But we must not overlook the fact that cartels of the first type frequently pave the way to those of the second type, so that "closer co-operation," regulation of output, sales, and prices, and even virtual monopolistic powers may ultimately evolve out of an apparently harmless "cartel of conditions."

Dr. Robert Jaccard says that "industrial syndicates, also called cartels, are understandings (*ententes*) concluded between producers, who conserve their autonomy, to restrict or suppress competition," and in another definition

¹ D. H. Macgregor, *Enterprise, Purpose and Profit* (1934), pages 153-5.

he states that the industrial cartel "is an understanding between producers of two or several countries who, while conserving their independence, agree to take measures in common with a view to restricting or suppressing competition in the international markets."¹ The definition given by the authors of the League of Nations *General Report on the Economic Aspects of International Industrial Agreements* (No. E. 736, Geneva, 1931) is worded differently—

Cartels are associations of independent undertakings in the same or similar branches of industry established with a view to improving conditions of production and sale. They are called "syndicates" or "*comptoirs*" where they have set up a common sales organization.²

Here there is nothing about the restriction or suppression of competition; but it is admitted (page 9) that the efforts of cartels to improve the positions of their members result in "a certain curtailment of unnecessary or excessive competition."

For the attainment of such objects, the members of the cartel agree in the common interest of their undertakings to take a number of joint steps in connection with both the production and sale of their products with a view to influencing or regulating the conditions of the market as extensively as possible. It is essential for the attainment of this object, and therefore conclusive as regards the character of the cartel as such, that it should comprise the majority, or, at any rate, the preponderant part, of the producers or sellers of the particular goods concerned, to such an extent as to compel the majority of the consumers to apply to the cartel for the satisfaction of their requirements.

Besides the preservation of the autonomy of the members, and the modification, restriction, or suppression of competitive conditions, cartels are characterized by the fact that the profits realized by *each member* are the net result of (a) its sales as regulated by the cartel agreement, and (b)

¹ Jaccard, *Les Syndicats industriels en Suisse* (Lausanne, 1925), page 11.

² Page 8.

its costs as determined by its own particular methods of production, internal economies, and so forth. Cartels are also characterized by their impermanence; but duration or degree of permanence cannot be included as a *distinguishing* characteristic. It is obvious that the proposed or intended duration of a cartel may differ widely from the actual duration of it. The latter seems largely to depend upon the business success met with by the cartel; the quality of its internal regulations; and the extent to which it proves necessary and possible to enforce disciplinary measures. The element of permanence is, of course, a factor of considerable importance, for if the agreement is stated to be of short duration, or seems likely, for other reasons, to be extremely temporary, each member will feel that he must be prepared for the situation which will arise if the agreement is not renewed. He will strive, for instance, to retain as many of his old trade connections as possible, and he will be reluctant to reduce very drastically the range and variety of goods which he has been in the habit of producing. Loyalty to the cartel is thus undermined.

An international cartel, unlike a trust, does not constitute a great unified legal entity, holding property of its own. Cartels commonly own little property. They are, in essence, merely industrial alliances between a number of separate units in two or more countries, or between two or more cartels, or between some independent producers and one or more cartels. None of these member bodies surrenders the right to be master in its own house and to make and benefit by such technical and organizational improvements as it can, except so far as limits are set by the acceptance of an output quota or some similar necessary incident of the cartelization scheme. "In some cases, however, a cartel for reasons of practical convenience, takes on the outward form of a company proper, with a separate legal personality, but this company is really no more than an executive instrument. In point of fact, it operates on account and for the profit of the members of the cartel. Thus joint selling or

purchasing agencies frequently assume the form of commercial companies. At the same time their capital is generally very small.”¹

The loosest form of international cartel is the friendly “understanding” or “gentlemen’s agreement,” and next in order comes the cartel composed of a mixture of national cartels and independent producers. International combines of this type are likely to be more unwieldy, less flexible in changing circumstances, and less permanent than international cartels composed of a relatively small number of thoroughly consolidated national units. In the International Incandescent Lamp Cartel,² and again in the Aluminium Cartel, there are some uncombined units and some combined groups. The French electric lamp manufacturers, for example, are combined in the *Compagnie des Lampes*.

Special sales agreements between cartelized and non-cartelized producers relating to particular products may be used to supplement the main operations of an international cartel. Thus, before 1937, the English steel producers, although not members of the International Steel Cartel, were able to conclude with that organization special sales agreements covering pipes and metal plates. The International Tube Cartel, which sprang originally from the combination of German producers with certain others in Polish Upper Silesia and Czechoslovakia, developed in a similar way. In 1926, French and Belgian works were included on terms which made the cartel partly a territorial cartel and partly a price agreement; but subsequently it was possible to secure agreement to aggregate output quotas, the German Tube Combine being predominant with a quota of 60 per cent. During the years 1927–29, other Polish producers joined, and agreements, as to export quotas only, were concluded with producers in England and Canada. Also two leading American undertakings—the

¹ League of Nations *Review of the Legal Aspects of Industrial Agreements* (1930), page 5.

² Formed in 1902.

Alleghany Steel Corporation and the Delaware Seamless Tube Corporation—entered into an agreement with the German Mannesmann Tube Companies, members of the international cartel, to share the international market.¹ Again, the Dyestuffs Cartel is, at bottom, an agreement between the German Farbenindustrie² and the Kuhlmann Company of France, and it is mainly directed from Germany. But efforts are now being made to extend the cartel, and already special arrangements have been made with Czechoslovakian, British, and Belgian producers.

So far and so fast is it possible for modern production to outstrip the purchasing power of the world's population, that we have seen, in recent years, quite a number of large-scale attempts to regulate or restrict the output of this or that staple commodity in order to maintain prices. Such attempts can succeed only when demand for the controlled commodity is inelastic (e.g. when consumers cannot resort to substitutes) and when the combined producers have under their complete control a very substantial proportion of all the producing units. The absence of either of these essential conditions spells failure for the combine. Thus, the Brazilian coffee producers found that control of Brazilian supplies alone was not sufficient to support the price of coffee, in spite of the fact that in the decade 1923–32, taking one year with another, they produced 70 per cent of the world's exportable coffee. Restriction of rubber output in the British Empire cannot be successful unless the native producers can be controlled and the co-operation of the rubber producers in the Dutch East Indies can be secured³ while the use of reclaimed rubber in place of new rubber raises another

¹ In April, 1933, it was reported that the International Tubes Cartel, composed of the Continental group—Belgium, France, Germany, Hungary, Poland and Czechoslovakia—and the group made up of the British, Canadian, and United States producers, had decided to continue the existing agreement until 31st March, 1935.

² On the formation of I.G. Farbenindustrie A.G. see *Report on Dyes and Dyestuffs* (1921), Cmd. 1370, pages 18–19.

³ See Mr. Ormsby-Gore's *Report on his Visit to Malaya, Ceylon and Java*, in 1928 (Cmd. 3235), and *Survey of International Affairs*, 1930, page 473, *et seq.*

obstacle. Again, as soon as the manufacture of cheap synthetic nitrate in large quantities became possible, the Chilean producers of natural nitrate lost the measure of monopolistic control over prices which they previously enjoyed. It is clear, therefore, that without a comprehensive international agreement no plan to regulate or restrict output is likely to succeed if the commodity in question, or good substitutes for it, can be produced in a number of different countries. The fluctuating fortunes of the international cartels in the sugar and tin industries furnish us with excellent illustrations.

Deepening depression in the sugar industry has resulted, since the War, in various attempts to raise prices by restriction of output. "Cuba, the largest sugar exporter in the world, made the first definite attempt in this direction. Undoubtedly, the primary object of Cuban producers was to obtain better prices in the United States market. The position of Cuba is peculiar. About 25 per cent of the Cuban output is produced in factories allied to United States refineries and approximately a further 50 per cent is attracted to America by the preferential tariff. The remainder of each year's crop has to compete in the open world market. Although Cuba enjoys a 20 per cent preference on the American tariff in accordance with the Treaty of Reciprocity, the pressure of Cuban sugar on the American market has become so great that American refiners have been able to exact prices which are no higher than Cuba has been able to obtain in world markets."¹ In 1926, the Cuban Government adopted restrictive measures designed to limit the sugar output each year, and to prevent any extension of the area under cane. Also "a Sugar Export Commission and a National Sugar Commission were created to fix (1) quotas for sale (a) for home consumption, (b) to the United States, and (c) to other countries, and (2) a reserve." . . . "A small rise in the world price of sugar took place in 1927,

¹ Ministry of Agriculture *Report on the Sugar Beet Industry at Home and Abroad* (1931), page 230.

possibly as a result of Cuba's action, but it soon became evident that without a corresponding restriction of output on the part of other exporting countries, the effort would fail, as increased production in other countries would fill the gap left by Cuban restriction. In 1927, therefore, delegates from Cuba met representatives of the sugar industry in Czechoslovakia, Germany, and Poland and an agreement was made to adapt production to consumption. As it was too late for the European countries to alter production for 1927-8, they agreed to endeavour to stimulate consumption in their own countries by advertising, etc., so as to reduce their exportable surpluses to a minimum. For the 1928-9 season, it was decided, provided Cuba restricted her production to 4,000,000 tons, to limit the total export of the three European countries mentioned to 1,150,000 tons, allotted in the proportion of 16½ per cent to Germany, 66 per cent to Czechoslovakia, and 17½ per cent to Poland. The effects of this agreement were, however, to a large extent negated by the fact that Java persistently refused to co-operate. She had an expanding market in the East, and with her intensive methods of production and strong sales organization was better able to meet the existing market conditions. For this reason, chiefly, the arrangements broke down; Cuba renounced her restrictive measures for the 1928-9 crop, while the three European countries considerably extended their sowings."¹

It had thus become clear that no success could be expected unless a very comprehensive international agreement could be concluded, preferably with the support of the governments of the major sugar-producing states in the world. The aid of the League of Nations was invoked, but without any of the results hoped for by those who desired an international agreement. Meanwhile, the representatives of the various national sugar industries had opened negotiations among themselves; but so long as the low-cost Java

¹ Ministry of Agriculture, *Report on the Sugar Beet Industry at Home and Abroad* (1931), page 231.

producers refused to agree to any scheme acceptable to the others, nothing could be accomplished. Down to the beginning of 1929, Cuban producers also remained lukewarm, but the size of the 1929 crop, coupled with unfavourable market reports, alarmed them and brought about a rapid alteration in their attitude. Moreover, as time passed and the situation grew more serious, even the Java producers and their Dutch directors became nervous, and in December, 1930, it was possible to bring together in Brussels a conference of delegates from the sugar industries of Cuba, Java, Germany, Czechoslovakia, Poland, Hungary, and Belgium to "explore" an international restriction scheme. "Prior to this conference the Javan and Cuban representatives met in Amsterdam and arrived at a provisional agreement whereby the Cuban annual production during the next five years was to be restricted to 3,500,000 tons and Javan annual exports for the same period to 2,000,000 plus 100,000 tons annually from a segregated pool of 500,000 tons, with an additional 100,000 tons each year after the first year should the expansion of world consumption warrant such an increase. As a result of subsequent meetings, a scheme, known as the 'Chadbourne Plan,' was finally adopted" by all the countries mentioned above and embodied in the International Sugar Agreement of 9th May, 1931. This was an agreement between the producers' associations in each country and not between their Governments, but the latter were in full sympathy and undertook to pass any legislation necessary to make the agreement effective. The chief aim was to liquidate the enormous surplus stocks, which were estimated to be over 4,000,000 tons above normal on 1st September, 1931. These surplus stocks were to be segregated and gradually released by not less than 25 per cent each year, so that by the end of four years all surplus stocks should have disappeared. In order to achieve this steady liquidation and to avoid the piling up of any new stocks, the exports of each country were to be limited to a given quota each year, and each

country undertook so to adjust and limit its total production that current production plus the portion of its surplus stocks to be disposed of during the year would equal home consumption plus its export quota. There was to be no segregation of markets or other interference with the export trade, and no direct control of price. But the quotas laid down in the agreement were to be subject to increase according to a sliding scale varying with the price. The programme of production for the first five years, 1931-35, allowed the following export quotas—

	1st Year	2nd Year	3rd Year	4th Year	5th Year
	Thousands of tons				
<i>Cane Sugar—</i>					
Cuba (Jan.-Dec.)	3,232	3,605	3,655	3,655	3,655
Java (Apr.-Mar.)	2,300	2,400	2,500	2,600	2,700
Total: Cane Sugar	5,532	6,005	6,155	6,255	6,355
<i>Beet Sugar—</i>					
Czechoslovakia	570.8	570.8	570.8	570.8	570.8
Germany . . .	500	350	300	300	300
Poland . . .	308.8	308.8	308.8	308.8	308.8
Hungary . . .	84.1	84.1	84.1	84.1	84.1
Belgium . . .	30.3	30.3	30.3	30.3	30.3
Total: Beet Sugar	1,494	1,344	1,294	1,294	1,294
Grand total	7,026	7,349	7,449	7,549	7,649

The aggregates, it was agreed, were to be allocated as follows: Cuban exports to the United States—1931, 2,577,000 tons; 1932-35, 2,800,000 tons per annum. All remaining sugars to "free" markets: 1931, 4,449,000 tons, increasing by 100,000 tons each year to 4,849,000 tons in the fifth year. If the price of sugar f.o.b. Cuba rose to 2 cents (gold) per lb. for thirty days, a 5 per cent increase in all exports quotas was to take effect; with further increases to follow if and when the price rose to 2½ cents and 2½ cents per lb. The administration of the scheme was placed in the hands of an International Sugar

Council, composed of three members of each of the seven participating countries. Voting power was allocated roughly according to the magnitude of the interests of the three main groups involved (Cuba 35, Java 30, Europe 25).

The scheme's most obvious and serious weakness was the absence of such important sugar producers as those of the British Empire, the United States, Russia, France, Italy, and Japan. This meant that at most the combine controlled no more than 40 per cent of world sugar output, and therefore, unless this proportion could be substantially increased, any attempts by the combined producers to reach and maintain higher prices were bound to be defeated by expansion of output on the part of the others. In fact, while the scheme was in operation, the output of participating countries was drastically reduced by some 5,000,000 tons per annum, while other countries increased their output by 4,500,000 tons.

PRODUCTION IN THE "CHADBOURNE COUNTRIES" AND
ELSEWHERE
(millions of tons)¹

	World	Chad- bourne Group	U.S.A. and Depend- encies	British Empire	Other Countries
1929-30	27.3	12.5	3.5	4.6	6.7
1930-31	28.4	11.4	3.6	5.2	8.2
1931-32	26.2	8.8	4.0	5.8	7.6
1932-33	24.1	6.4	4.3	6.7	6.7
1933-34	25.6	6.1	5.0	7.4	7.1
1934-35	25.9	6.4	3.5	7.4	8.6

Moreover, not only does the world output of sugar normally show a strong tendency to increase (in certain cases as the result of State subsidies)² but the elasticity of demand for it seems to be low and reduced prices bring little

¹ Figures from Royal Economic Society's *Memorandum No. 69* (November, 1937).

² "The essence of the whole sugar problem has, all along, been the determination of almost every country in the world to produce its own sugar, more or less irrespective of the cost." (J. W. F. Rowe, *Markets and Men* (1935), page 85.)

response from consumers—a factor which the framers of the Chadbourne Agreement failed to assess correctly.

Another weak spot was the lack of provision for downward revision of quotas; and it so happened that the scheme had been in operation less than a year when the quotas had to be revised in a downward direction, owing to the deepening of the world depression, and the enormous fall in sugar consumption. The United States did not absorb the Cuban quota and Java could not dispose of the whole of her quota in the Far East. Lengthy negotiations ensued, with the result that the Cubans agreed to reduce their 1932 crop to 2,700,000 tons, on condition that the European and Peruvian producers would reduce their exports by any amount by which Java's exports exceeded 1,500,000 tons during the year April, 1932, to April, 1933.¹ By this revision, announced at the end of March, 1932, the International Sugar Agreement was saved, at least on paper. But it appears that within two months the Cuban growers sent in a demand for the addition of 277,000 tons to their export quota to countries other than the United States. In July, 1932, the other members of the cartel made a counter offer of 150,000 tons increase in the Cuban quota.² This offer involved not an increase of the world export total, but a transfer to Cuba of part of the export quotas of other producers.

Mr. J. L. Fairrie roundly criticized the Plan in the following terms—

The Chadbourne Plan has entirely failed to live up to the promises and prophecies of its creators. Confidence was destroyed by its obvious shortcomings and prices went down instead of up. The foundation of the Plan was a hypothetical agreement between Cuba and the United States domestic producers. Cuba was persuaded to limit her sales to countries outside the United States and in turn was promised a definite quota in the United States by virtue of agreement with Porto Rico, the Philippines, the Hawaiian Islands, and the United States beet producers.

¹ *Economist*, 2nd April, 1932.

² *News-Chronicle*, 14th July, 1932.

The curtailing of her foreign markets prevented Cuba from competing with Java in the East. In return for this Cuba was given precisely nothing. There was not the vestige of an agreement with the United States domestic producers, whose crops tend to become greater rather than less. Mr. Chadbourne's influence at Washington proved to have been overestimated. His statements regarding American co-operation were not substantiated.

At the time of writing (4th October, 1932) there is no definite news from Brussels beyond the report that the quantity by which Cuba wishes to increase her export quota to countries other than the United States is regarded as unreasonable, and that the European countries would prefer to be free of the scheme rather than give way entirely. It is quite possible that the Conference will again make no decision, and will once more adjourn with the release for publication of cordial messages to and from all.¹

It is now quite clear that the Plan completely failed to raise prices and that it only partially succeeded in reducing stocks. Owing chiefly to the expansion of production in non-participating countries it was virtually a dead letter by 1933, and it was not renewed when the five-year period expired in September, 1935. By October, 1936, consumption had revived, surplus stocks of sugar had practically disappeared, and a considerable increase of both production and consumption was in prospect. At this point the industry decided to try to forestall either a glut or a serious shortage by making a new and more comprehensive international agreement to control exports by means of quotas in such a way as to share out between the principal producers any increase in demand from the free markets, and to limit stocks to approximately 25 per cent of the agreed quotas. The agreement, administered by an International Sugar Council (composed of representatives of all co-operating governments) and an executive committee of nine members, is to run for five years from 1st September, 1937. The executive committee consists of equal numbers of

¹ *Manchester Guardian Commercial*, 8th October, 1932, pages 297-8.

representatives of cane-sugar producers, beet-sugar producers, and importing countries.

By way of criticism it may be said that consumers' interests and points of view are, apparently, ignored, and that the quotas appear to be based upon a somewhat optimistic estimate of consumption over the next five years. The existing structure of the world sugar market is accepted as practically unalterable, and therefore the basic problems of high protective duties on sugar imports, state subsidies, and the very limited free market are untouched.

Although the Chadbourne Plan and the existing international agreement stand out as the most comprehensive attempts at international combination yet seen among sugar producers, they are not the only examples the sugar industry can show. In the heavily subsidized English beet sugar industry, for example, factories at Cantley, Kelham, Ely, Ipswich, and King's Lynn were run for many years by an Anglo-Dutch group of companies¹—a fact which makes one suspect that some of the British taxpayer's money may have found its way into foreign pockets, *via* the beet sugar subsidy.

Between 80 and 90 per cent of the world's output of raw tin is now strictly controlled under an international output restriction scheme organized with the aid of the governments of the five principal tin-producing countries—Malaya, the Netherlands East Indies, Nigeria, Bolivia, and Siam—and operated through an international body called the International Tin Committee. The cartel has been in existence since 1st March, 1931. The restrictive provisions of the scheme were supplemented in August, 1931, by the formation of an International Tin Pool, with the object of withdrawing from the market redundant stocks which were exerting a distinctly depressing influence upon prices. These stocks were to be held until the combined tin producers and their governments decided that trade was "in a position to absorb them"; presumably at higher prices than those

¹ *Economist*, 13th February, 1932, pages 367-8.

ruling when the Pool was formed.¹ Drastic restriction of output, imposed upon all the combined producers by legislation in their several States, resulted in a 50 per cent increase in the price of tin between March, 1931, and August 1932. Details of the events and economic pressure leading up to the formation of this combine will be found in Chapter III.

We will now pass from the cartel to the "concern." The word "concern" is very commonly used in English to mean any kind of business organization: as when we speak of "a going concern." But in the technical sense in which it has come to be used in discussions relating to capitalistic combines, "concern" means combined businesses under unified financial control, but falling short of complete fusion. An international concern may, therefore, be defined as a union, on an international scale, of undertakings which remain juridically independent of one another, into a single unit for the purposes of productive technique, trading, administration, and finance. It is a "very various organized conglomeration of several undertakings, which are partially co-ordinated, but mostly brought under one control as subsidiaries of large companies."² Unified control of *all* aspects of the concern's activities is not essential; but unified financial control is commonly found, coupled, it may be, with some centralized control of technical matters or commercial policy. A concern, however, may be purely financial; but whether it is or not, the control-power vests in, and proceeds from, the centre to all the subsidiary undertakings which form the circumference,³ and in this it is in complete contrast with a cartel, which is really controlled

¹ It has been stated that when the average price of tin was not less than £165 per ton for one month, the Pool was at liberty to sell 5 per cent of its stocks; and the price had to rise still more before further portions of its stocks could be sold. Cf. *Economist*, 10th Sept., 1932, page 478; *Manchester Guardian Commercial*, 22nd October, 1932. The Pool was discontinued, but it may be revived shortly.

² Liefmann, *Cartels, Concerns, and Trusts*, page 6.

³ Dr. Liefmann calls attention to the rapid penetration of German industry by foreign financial and industrial undertakings in recent years. *Ibid.*, 267.

from the circumference, i.e. by its member firms and corporations. The international concern is not so much an alliance between producers in different countries, as a close federation.

When to centralized and unified control of financial, industrial, and commercial policy there is added the complete merger and ownership of the constituent undertakings, in two or more countries, we have an international trust. These organizations do not leave any substantial measure of independence to the constituent parts, and they seek to make profits for themselves; not working for the benefit of a number of distinct undertakings. The international trust may be linked up with other corporations, but these will be usually subsidiary to it and controlled by it. A cartel, on the contrary, is really controlled by its member firms or corporations. As between cartels and trusts this is an essential distinction. A cartel is a democratic form of industrial government; a trust is essentially aristocratic. "An exhaustive study of the organization of these trusts," says a League of Nations document, "would show that the directors succeed within a few years in getting together an enormous capital by the issue of shares bearing a fixed rate of interest or carrying with them a share in the profits or, again, by offering the public shares which carry a single vote, while retaining the actual control of the trust by means of shares which carry a plural vote but represent only a very small proportion of the capital involved. The political, economic, and social repercussions produced by the extraordinary development of big world trusts thus call for very special attention.¹ The tasks of leadership, organization, coordination, and control which thus rest upon the shoulders of small groups of men are tremendous. "It is more than a captaincy of industry that is required; for the problem of extending the market, which is the fighting part of its work, is combined with the problem of . . . keeping many

¹ *Review of the Legal Aspects of Industrial Agreements* (1930), page 8.

separate managements under the inspection of one central board.”¹ International concerns and trusts developed first from the desire to have branches—factories, warehouses, offices—in two or more countries; a line of advance which is no doubt attributable partly to the pressure of heavy import duties, and partly to the desire to have a closely controlled unit “on the spot,” making a special study of the local market requirements and peculiarities. To-day, international concerns and trusts are very frequently built up, by what may be called the “holding-company method.”¹ The term “holding company,” as understood in England, means a company whose chief function is to hold the shares or stock of other companies, *with the intention of controlling* their operations or policy. It is this intention to exercise control which distinguishes the holding company from the investment or trust company.² Usually control over a group of subsidiary companies is exercised by one holding company only; but dual control (e.g. by two companies holding equal rights in the controlled company or companies) is not unknown. For example, the Fox Film Corporation, through the United American Investing Corporation, has an equal interest, with the Metropolis and Bradford Trust, in the Gaumont-British Picture Corporation.

The holding-company method has the advantage that it can be used to form combines, while at the same time little or no interference with the undertakings brought within the combine need take place. It is not necessary to alter or disturb the name or goodwill of subsidiary companies. The holding company seeks to control all, or at least the majority of, the businesses in which it acquires “interests”; but it does not seek to merge them into itself. It is a most flexible form of international economic organization. It

¹ Macgregor, *The Evolution of Industry* (1911), page 220.

² “A holding company may . . . be defined in terms of its distinguishing characteristic as any company with share capital which is in a position to control or materially to influence the management of one or more other companies by virtue, in part at least, of its ownership of securities of the latter.”—*Encyclopaedia of the Social Sciences*, vii, page 403.

may be classed as "a pure holding company if its assets are composed almost entirely of the securities of other companies, and as a parent holding company (or parent company) if in addition to the ownership of such securities it conducts an operating enterprise as a directly owned property."¹ By means of various purchases of shares sufficient to give to the holder a controlling interest in each company to which it turns its attention, one of these holding companies may gradually gain control of a certain branch, or allied branches, of industry in a number of different countries. Such an international organization can be built up piecemeal, by degrees; and the quiet purchase of controlling interests affords an inconspicuous but very effective way round, when public opinion would rise, or actually has risen against, a proposed international combine. All this is part of what Professor Macgregor calls "the silent occurrence of events" in the world of modern capitalism; activities slightly below the surface of public affairs, potent yet not prominent. No collective votes of the shareholders of the companies which are being brought under the control of the combine are necessary. Furthermore, the method facilitates the decentralization of the detailed management of international combines, and it has the added advantage that by selling certain shares the controllers of the combine can withdraw from any branch of industry in any country in which they may no longer wish to carry on operations. The holding-company method is also the cheapest way of building up an international concern or trust, because less capital is needed to purchase a succession of controlling interests in various companies than to acquire their property and goodwill by direct purchase of each undertaking; "and yet the promoters have the use of the investment of all the minority holders in all the corporations brought under their control."² By "pyramiding," a holding company may

¹ *Ibid.*, pages 403-4.

² Marquand, *The Dynamics of Industrial Combination* (1931), page 127, quoting the Attorney-General of Ohio.

gain control of *sub*-subsidiaries through its holdings of slightly more than 50 per cent of the shares of its subsidiaries. Where the holding company does not acquire all the shares in a subsidiary, the question of minority rights arises. Transactions which may benefit the owners of the holding company may not be beneficial to—indeed they may even injure—those investors in the subsidiary who are not shareholders in the holding company.

In the comparatively new artificial silk (or rayon) industry we have a remarkable example of a world-wide international combination of national units and combines. It is a good deal more than a gigantic international cartel. It is a vast and intricate network of interlacing interests, both financial and industrial, constructed mainly by means of various exchanges of shares, and agreements for interchange and pooling of technical knowledge, and it is moving, in all probability, towards a still closer and more comprehensive form of international combination. From the outset, the rayon industry has been definitely a large-scale industry, carried on by a small number of very large and rapidly expanding units. "The necessity of finding markets for increased production and the imposition of customs duties in many countries have (also) been among the factors which have favoured a movement towards the international syndication of the industry and the extension of the manufacturing activities of large enterprises into other countries. The outstanding tendency, in fact, of the post-war period has been the rapid growth of international arrangements which are extremely intricate and far-reaching, and in this movement British interests have taken a leading part. In Great Britain, Germany, Italy, and the United States (to name only the principal producers) a large part of the domestic production of artificial silk is now in the hands of very large firms, who also control or are associated with producing firms in other countries. In Great Britain the first place is taken by Messrs. Courtaulds, Ltd., who, with their controlled interests abroad, are also the largest producers in

the world. . . . The activities of the company include the production not only of artificial silk but also of manufactured goods (tissues, etc.) made from the material."¹

Courtaulds' pre-eminent position in the industry has been built up by making industrial agreements with established producers in other countries, and by acquiring shares in, or exchanging shares with, foreign undertakings, and by setting up factories in regions where none previously existed. Between 1913 and 1924 the capital of Courtaulds was raised from £2,000,000 to £32,000,000 largely by a succession of capitalized share bonuses. The company's principal interests outside Britain lie in Canada and the United States, where, among other interests, it holds 90 per cent of the share capital of the American Viscose Corporation, an undertaking which produces over one-third of the rayon output of the United States, or approximately 11 per cent of total world output.² Courtaulds, Ltd., has a working agreement with the rayon producers of France (where it practically owns La Soie Artificielle de Calais), and an interest in the Asahi Company in Japan. Nor does the international interlacing by any means end here.

"In Germany the leading company is the Vereinigte Glanzstoff Fabriken A.-G., which is responsible for over half the total output of Germany. In Italy the principal place is held by the Societa Nazionale Industria Applicazione Viscosa ('Snia Viscosa') of Turin, with a capital of 1,000 million lire, or over half the estimated capital of all Italian artificial silk companies." In 1925, Courtaulds and the

¹ Committee on Industry and Trade, *Survey of Textile Industries* (1928), page 296.

² *Economist*, 15th July, 1933, page 136. On 12th August, 1933, the *Manchester Guardian Commercial* reported that: "American viscose prices have shown another rise. The American Viscose Company (Courtaulds) advanced their prices by five cents to ten cents a pound, according to count, 150 denier rising five cents and the bigger advance applying to the finer counts. Following this advance the American Du Pont Rayon Company, the Tubize-Chatillon Corporation, and the American Glanzstoff Corporation all raised their prices to bring them up to the American Viscose Company's level. The advance was fully expected. It was, in fact, believed in many quarters that the increases would be even larger."

Glanzstoff group made "an arrangement for co-operation," and early in 1927 these two giant undertakings entered into an agreement with the Italian company which included an interchange of shares, and was stated to aim at elimination of wasteful competition and the promotion of co-operation mainly along the line of the pooling of technical improvements and inventions. "Having regard to the previously existing connection between the three participants in this arrangement with large producers outside their own countries, it is clear that the linking of the companies represents a very important step towards the world-wide interconnection of the artificial silk industry. . . . The Glanzstoff concern has international interests extending to the United States, Czechoslovakia, Austria, and Holland; and it is also stated to have agreements with firms in Japan and Switzerland. Moreover, it is associated with the other German viscose producers in a combine which was formed in 1926 to standardize and classify viscose silk and to fix uniform prices and terms of delivery. Snia Viscosa has interests in producing concerns in the United States, Poland, Roumania, and possibly other countries."¹ Vereinigte Glanzstoff is also allied to I.G. Farbenindustrie.

In France, the undertakings combined in the Comptoir des Textiles Artificielles produce approximately 60 per cent of the French output, and have considerable interests outside France (e.g. in Japan). The Dutch Enka group, which has factories in Holland, Britain, and America,² has concluded with the German Glanzstoff group "an agreement for close co-operation resembling a merger," generally called the "Aku" or A.K.U. (Algemeene Kunstzijde Unie N.V.), in which Courtaulds hold an interest, believed to amount to about 10 per cent. The A.K.U. group is the second largest rayon-producing combine in the world. The smaller Dutch combine—the Breda group—has interests in enterprises in

¹ *Survey of Textile Industries*, page 297.

² British Enka, Ltd., owns one of the largest rayon plants in Great Britain.

Britain, France, and Spain. The Breda-Visada Co., Ltd., took over British Visada, Ltd., as a going concern at the end of 1928,¹ and in November, 1933, A.K.U. and Dutch Breda made a joint arrangement relating to technical research and the acquisition and sale of patents and licences, by forming a new and separate company with a capital of 50,000 florins, of which A.K.U. holds 52 per cent and Breda 48 per cent. In Japan, where the industry is making remarkable headway, there are, besides purely national undertakings, factories established by the European combines—the Glanzstoff combine, Courtaulds, and the Comptoir des Textiles Artificielles.²

The international combination movement in the rayon industry has not yet reached its zenith, and it is likely that the keen competition of the Japanese may lead to further consolidation among European and American producers.

A new branch of manufacture, technically akin to rayon, is the production of "cellophane," a transparent material now largely used for wrapping. Courtaulds have a substantial interest in British Cellophane, Ltd., and an agreement with La Cellophane of France, covering the manufacture and trade in "cellophane" in Great Britain.

An example of a vast network of interlacing interests, mainly financial, is to be seen in the electricity supply, tramways, and gas industries. The two Belgian companies—the Société Financière de Transports et d'Entreprises Industrielles ("Sofina," mentioned in Chapter I) and its associated Compagnie Générale d'Entreprises Electriques et Industrielles ("Electrobel")—hold interests in electricity, tramway, and gas undertakings not only in various European countries, but in America also. It has been stated that no fewer than forty-two banks and banking houses are "behind" the Sofina company. Besides important holdings in Belgian undertakings, Sofina controls

¹ *Manchester Guardian Commercial Supplement*, 2nd July, 1931, page 30.

² *League of Nations Review of Several International Industrial Agreements*, page 53.

the French Société Centrale pour l'Industrie Electrique; has interests in the Loucheur group through the Société Générale d'Entreprises; in the Société Financière Electrique, which is the financing company behind the French Thomson-Houston combine; in the Compagnie d'Energie Electrique du Nord de la France, which supplies the Roubaix-Turcoing-Lille industrial region; the Union pour l'Industrie et l'Electricité (U.N.I.E.), and the Compagnie Centrale d'Energie Electrique, of Paris, which, together with Sofina, has important interests in Algerian electricity undertakings. In 1924, Sofina took the lead in an international consortium to take over shares to the extent of five million marks in the German Gesellschaft für Elektrische Unternehmungen-Ludw. Loewe & Co. A.G. ("Gesfürel"), and acquired interests in two of its subsidiaries. Later, the Sofina-Gesfürel group founded the Berliner Kraft und Licht A.-G. In Italy, Sofina has interests in the Societa Bolognese di Elettricità, which belongs to the Adriatica group; and Sofina and Electrobél both have interests in the Societa Generale dell'Adamello. Count Volpi, chairman of the Italian Adriatica group, has been elected to the board of Sofina. Sofina's English interests are represented by the Electric and Railway Finance Corporation, Ltd. (which in 1936 paid a dividend of 25 per cent and a bonus equal to 12½ per cent on the paid-up capital), and through the Société Belge de l'Azote, Sofina is linked with the international nitrate cartel.¹

Many of the electricity supply companies in England are linked financially with America, and it was shown in evidence before the McGowan Committee in 1936 that in certain cases there were at least seven "intermediate interests" between the British consumer and the ultimate controlling body in the United States.

"The 'Concern' dominated by the American firm E.I.Du

¹ *Manchester Guardian Commercial*, 17th September, 1931, page 241; article by Mr. H. D. Court; Annual Reports of the Board of Directors of Sofina. A list of companies in which Sofina is "interested" will be found in Appendix IX, page 288.

Pont de Nemours & Co., Inc., may be taken as another example. In spite of the dissolution in 1912, by court injunction, of some of its properties, it still controls companies which produce nitrate and nitro-glycerin; manufacture explosives, artificial silk, cellophane wrapping material, paints, varnishes, dyes, motion picture film, and alcohol; and operate machine shops and foundries, real estate, hotels, and a theatre. In addition it held in 1926 about 26 per cent of the common stock of the General Motors Corporation, through which it comes into contact with Nobel Industries, Ltd., and hence with Imperial Chemical Industries. It has agreements for interchange of patents and processes with the German chemical and explosives industry, and has some holdings of securities in that industry. Especially through General Motors, it is closely in touch with the Morgan interests, and J. P. Morgan & Co. act as its financial agents."¹ General Motors Corporation is primarily an operating company, owning or controlling motor-car manufacturing and assembling plants, export organizations, and many allied companies,² including the Ethyl Gasoline Corporation which it controls jointly with the Standard Oil Company. General Motors Corporation produces such well-known makes of cars as Buick, Cadillac, Chevrolet, Vauxhall, La Salle, Oakland, Oldsmobile, McLaughlin, and Pontiac, as well as parts and accessories of every description. It now has, also, an important interest in Adam Opel, the largest German automobile manufacturing company.

It is not difficult to find further examples of international concerns and trusts, past and present. Marshall refers to the great metal combine which "had its origin in the London firm of Merton, in association with some other members of

¹ H. A. Marquand, *The Dynamics of Industrial Combination* (1931), pages 134-5. The Du Pont Rayon Co. is the second largest rayon producer in the United States.

² These include: General Motors of Canada, Yellow Truck & Coach Manufacturing Co., United Motors Service Inc., General Motors Export Co., Delco-Remy and Hyatt, Ltd., Vauxhall Motors Ltd., General Motors Acceptance Corporation.

the Cohen family," and which, with "its world-wide associations . . . before the War, constituted a most powerful community of interests."¹ The *Report of the Committee on Trusts* says—

The world's trading and industry in a number of . . . base metals were largely controlled before the War by a powerful group of German interests, operating in conjunction with, but dominating, local financial interests in a number of countries. The centre of this combination was the Metall-Gesellschaft of Germany, with which were affiliated through stock holdings the Merton Metallurgical Co. and the American Metal Co.; and all three concerns were interested in the Metallbank und Metallurgische Gesellschaft of Germany. The group of companies thus inter-related were affiliated by actual ownership, by stock holding, by interlocking directorates or in other ways with, and in fact controlled, companies engaged in metal dealing, refining or mining in Germany, the United Kingdom, France, Belgium, Switzerland, the Netherlands, Spain, Australia, the United States, and Mexico.

Two other important German metal concerns—Beer Sondheim and Co. and Aaron Hirsch und Sohn—had also control over a number of subsidiary companies, the former in Austria, Germany, Belgium, Italy, Australia, and France, and the latter in Germany, the United States, Mexico, and Australia; and were closely associated with the Metallgesellschaft and each other in various syndicates and combinations. Dominated by these German interests were (1) the Lead Convention, including all the principal producers of soft pig lead, which was formed in 1909—the selling of soft pig lead was handled by the Metallgesellschaft on the Continent, and the Merton interests in the United Kingdom; and (2) the Spelter Convention, formed also in 1909.

It has also been asserted that the interests of this combine spread out into the chemical, dyestuffs, electrical, and munitions industries in Germany, Britain, and the U.S.A.²

As an example of a great international trust recently in the public eye we may cite Unilever Limited, which was

¹ Marshall, *Industry and Trade*, page 570.

² Donaldson, *International Economic Relations* (1929), page 319, *et seq.*

registered in November, 1927, as Margarine Union, Ltd., and having acquired all the ordinary share capital (£6,500,000) of Lever Brothers, Ltd., it changed its name to Unilever Ltd., in September, 1929. This combine includes Van den Berghs, Ltd., the well-known dealers in margarine and similar products, incorporated in 1895, with a capital of over £3,000,000. For many years there was stiff competition between Van Den Berghs, Ltd., and Anton Jurgens & Co., a Dutch firm, and in 1908, the competitors thought that it would be to their mutual advantage to enter into an agreement for sharing profits. Accordingly over a period of years three pooling agreements were entered into. The first agreement, dated 13th February, 1908, contained many complicated provisions, but broadly its effect was that each company acquired an interest in the profits of the other. There was a supplemental agreement in 1913 whereby it was agreed that subject to certain modifications the principal agreement of 1908 should continue in force until the end of 1940. After the settlement of a complicated dispute arising out of these agreements, the members of the Van Den Bergh and Jurgens families decided to consolidate their interests by forming a Dutch holding company and an English holding company. In association with the Dutch sister concern, Unilever N.V., Unilever Limited now controls not only the Jurgens and Van den Bergh groups of companies, but also the Schlicht and Hartog concerns, both of which manufacture soap and margarine, the former mainly in Central and Eastern Europe, and the latter in Holland. In 1931, two additional companies were formed under the names of Unilever (Raw Materials), Ltd., and Unilever Grondstoffen Maatschapij N.V., in order to facilitate the buying, holding, and administration of stocks for the English and Dutch groups of companies respectively.¹ This colossal international combine now includes over 600 companies. The supreme twin holding companies (Unilever Ltd.

¹ *Economist*, 16th April, 1932, page 864.

and Unilever N.V.) are kept separate not only for organizational reasons but also in order to avoid the costs and complications of double taxation. But the real nerve centres are to be found in the interlocking directorates of two private companies, each of which controls 50 per cent of the voting power in Unilever Ltd. and Unilever N.V.; so that the British and Dutch interests jointly control both. The whole vast organization is divided into a number of groups of companies. There are separate directors and managers for each group, and a small number of directors whose special function is to keep constantly in touch with the group executives so as to maintain uniformity of policy.¹ *The Economist* has ventured to declare that—

The Unilever combine and Communism have not a few points of similarity—in a strictly business sense. The combine is governed by committees innumerable. It controls the working life of the vegetable oil industries almost as completely as the Soviet monopolizes the working life of the Russian people. It embraces every activity from the production of the raw materials to the retail selling of finished goods. And, curiously enough, both Soviet and Unilever catch whales in the Antarctic. For the investor and economist, however, the significant feature is that the more enlightened and efficient Unilever and the Soviet become, the more difficult it is to investigate their operations and to analyse their accounts.²

The truth of the last sentence becomes patent when we try to trace the combine's ramifications through to the subsidiaries. In England, for instance, Unilever Ltd., controls English Margarine Works, Ltd., and the British section of the Van den Bergh undertaking, through which it controls Meadow Dairy Co., Ltd., which in turn controls Pearks Dairies, Sherry's Dairies, Brough's Tea, Ltd., and Neale's Tea Stores. Unilever Ltd. also holds a substantial interest in Home and Colonial Stores, Ltd., through which it is linked with Allied Stores, Ltd., Liptons, Ltd., and

¹ Unilever Ltd., Chairman's speech, 29th April, 1932.

² *Economist*, 11th June, 1932, page 1300.

[illegible]

(from *The Economist* of 11th June, 1932, by courtesy of the Editor)

- A.—Bromboro Port Estate.
Mac Fisheries.
Ocean Harvest, Ltd.
Southern Whaling & Sealing Co.
Aberdeen Steam Trawling Co.
- B.—British Oil and Cake.
British Soap.
John Barrington.
Erasmo Co.
Barton's Seed Crushing Mills.
Lever Brothers, Ireland.
J. Kitchen & Sons.
Pears, Ltd.
Price Soap.
Savonneries Sunlightswitz.
Wm. Taylor & Co.
- C.—Candles, Ltd.
Chivers & Co.
Cleavers & Sons.
Cook Bros., Ltd.
E. Cook & Co.
Delecta, Ltd.
D. W. Gibbs, Ltd.
- D.—Hodgson & Simpson.
R. S. Hudson, Ltd.
Int. Iceima Trading.
J. Knight & Co.
T. Newby & Sons.
Stanley Pibel, Ltd.
- E.—J. L. Thomas & Co.
Vnolia Co.
J. Walkden & Co.
Wilkie & Soames.
- F.—Benj. Brooks & Co.
Bloomfield, Ltd.
J. Crossfield & Co.
- F.—Charles Dean, Ltd.
Gossage & Sons
R. B. Green & Co.
McIver & Co.
- G.—Murhead & Wilcock, Ltd.
Planters Food Co.
Planters Margarine Co.
Thomas & Bros.
Trufood, Ltd.
T. Wall & Sons.
S. P. D., Ltd.
- H.—Lever Bros. Co. (Boston).
De Levers Zeep Mj.
- I.—Huilemes du Congo Belge.
Trading Assoc. of Nigeria.
United Exporters.
- J.—Berg Hark Margarine Werke
Isserstedt.
Oldenburgsche Margarine Werke
Margarine Grundstuck A.-G.
Schmutz & Loh Margarine
Fabriken.
Fritz Homann A.G.
- K.—Allgemeine Deutsche Marg.
Werke.
Marg. Werke Dr. A. Schroeder.
Allgemeine Deutsche Marg. A.-G.
C. & A. Muller Speiselett.
Teutonia.
- L.—Calvé.
Cohen and V. D. Laan
Fabrieken de Marg. Hollando-
Hongroise.
- M—Div. Winkels en Melkin.
Verschure & Co.
Zeep & Oliefabriken Zwundrecht.
- N.—Dr. Boemer & Cie.
Cron & Scheffel.
Hamburger Oliefabrieken.
Max Boemer
Wahnschaffe Muller & Co.
- O.—Clivia
Clever Olmuhlen.
Frank. Margarine A.-G.
Pratana.
Reeser.
- P.—Estol
Berolua.
Mika.
Oelinenborster Marg Fabr.
Palma.
Sana.
Theorl Oelfabrieken.
Uhlenbrock Marg Werke.
- Q.—Albers Creameries.
Med Ind. Oliefabrieken.
Scheeps Mj. Palmijn.
Vera Hu Falua
Zeepfabrieken Utrecht.
- R.—Eerste Makass Oliefabr.
Olief Jacatra Batavia
Jurgens Soerabaja.
- S.—Deduij.
Nunnegeche Stoonz Fabrieken.
"Rosa" B. op Z.
Tieleman & Drosiedien.
Viruly Gouda.
Zuthphensche. Stoonz Fabrieken.
- T.—Ardol
Olympia Oil and Cake Co., Ltd
Selby Warehousing & Transport.
- U.—Brake & Cie.
Runardwerke.
Mohr & Cie.
A. L. Mohr.
Krog & Evans.
Rositzki & Witt.
Schynck & Cie.
Rossum & Cie.
"Rheineland" Marg. Fabrieken.
- V.—Neusser Marg. Fabrieken.
Salb & Wahl
Bremenbergsheim Oelmuhlen.
Verein Deutscher Oelmuhlen.
Jurgens & Printzen.
Gross-Gerau.
Kassalin-Werke.
Fett Rafiner, Bremen.
Aacherner Spessolfabrieken.
Marg. Fabr. Westmarga.
- W.—Aubervilliers, Paris.
Union "Antwerp."
Forenade Marg. Fabrieken.
Steenon Marg. Fabrieken.
Bona Marg. Fabrieken.
Jysk Marg. Fabrieken.
- X.—Danziger Oel Rafinere.
Agra Marg. Fabrieken.
Hya Marg. Fabr. A B. Svea.
Upsala Marg. Fabrieken.
- Y.—Eld Marg. Fabrieken.
Kohn Marg. Fabrieken.
Korsers Marg. Fabrieken.
Walvischvaart Mcvictor.
- Z.—Hollandia Melkprod.

Maypole Dairy Co., Ltd., and, through the latter, with Maypole Margarine Works, Palmine, Ltd., and British Oil Works. This is but a sketch of the combine's English interests, and it is no more than a corner of the whole vast area of its ramifications; for it controls the major part of the margarine industry of Europe, and has interests in oil crushing and refining factories and allied industries, with their distributing organizations, in Britain, Holland, France, Belgium, Germany, Norway, Sweden, Denmark, Italy, and the Dutch Indies. The combine's West African interests are in the care of the United Africa Company, Ltd., in which the combine holds 80 per cent of the share capital¹ and a dominant proportion of the voting power. Moreover, the United Africa Co. holds, directly or indirectly, controlling interests in no fewer than sixty-six companies carrying on operations in different parts of the world.

Brief mention may be made of certain other international concerns. The American Singer Company, with its overseas subsidiaries, controls about 80 per cent of world production of sewing machines. The Nestlé and Anglo-Swiss Condensed Milk Company, formed in 1866 under Swiss law as the Anglo-Swiss Condensed Milk Company, acquired the Société Anonyme Henri Nestlé in 1905, and absorbed, in 1929, the firms of Peter, Cailler, Kohler, and Chocolats Suisses S.A. The combine also controls numerous subsidiaries operating in all the principal countries of the world. Its issued and paid-up capital is Swiss Fcs. 142,500,000.² A French concern known as L'Air Liquide (Procédés Georges Claude), which produces nitrogen from the air, owns many foreign subsidiaries, notably in Germany. Much of the capital of the important Norwegian nitrogen concern is French, and some of it German. The well-known company called Willys Overland Crossley, Ltd., is a merger which owns A. J. Stevens and Co. of Wolverhampton,³ and is closely

¹ *Economist*, 11th June, 1932, page 1301; 12th November, 1932, page 894.

² *Stock Exchange Year Book*.

³ *Stock Exchange Year Book*.

linked with sister companies in the United States and Canada. The Chairman of the English company stated, in November, 1932, that "the great resources for research, designing, and experimental work of those companies are at this company's disposal," and that the export part of the English company's business was "a concession granted by their American associates."¹ The (Italian) Montecatini concern owns international interests, mainly in iron and chemicals; and there is also the International Cork Trust, in which Belgian interests predominate. Stepping a little over the theoretical line which divides finance from industry, we may include in our list many of the British Overseas Banks, such as the Anglo-South American Bank, Ltd., which was first registered, in 1888, as the Bank of Tarapaca and London, Ltd. It absorbed the Anglo-Argentine Bank at the beginning of the present century, and went on to acquire all the share capital of the British Bank of South America, which operates in Brazil, and 99 per cent of the capital of the Commercial Bank of Spanish America. The Anglo-South American Bank had its head office in London, branch offices in Bradford and Manchester, and numerous branches throughout Argentina, Chile, Central America, and Spain, and at Lima (Peru), and Mexico City. It also had an auxiliary company—Anglo-South American Trust Co.—incorporated under the laws of the State of New York.² In 1936 the Anglo-South American Bank, having become too deeply enmeshed in the Chilean nitrate industry, was taken over by the Bank of London and South America, which was itself formed in 1918 by the amalgamation of two banks operating in Argentina and Brazil.

In the gramophone and radio industry the merger of the Gramophone Company, Ltd. (the "H.M.V." company) and the Columbia Graphophone Co., Ltd., brought under the control of the new concern—Electric and Musical Industries, Ltd.—the fifty assembly units owned by the

¹ *News-Chronicle*, 24th November, 1932.

² *Stock Exchange Year Book* and *Stock Exchange Official Intelligence*.

two companies and their subsidiaries, situated in nineteen countries spread over four continents: thirty-eight in Europe, seven in Asia, three in South Africa, and two in Australia.¹ The new concern has an issued capital of nearly £3,823,000, and it holds 99 per cent of the ordinary and preference shares of both of the combined companies.² In 1937 the combine acquired Rudge-Whitworth, Ltd., the cycle and motor cycle manufacturers. It also has an agreement with the Decca Record Company for the exchange of recording rights in North and South America, the Far East, Australia, and New Zealand. Another gramophone concern, which is not so well known, is the Crystalate Gramophone Record Manufacturing Co., Ltd. This company has subsidiaries operating in America, France, and Germany, and owns factories in Tonbridge and Berlin. It does a large, specialized business in the cheaper gramophone records. In 1928, it acquired the entire share capital of Regal Record Company Inc. of New York, and this company has since been merged in the American Record Corporation, in which the Crystalate Company now holds an interest. In 1932, the Crystalate Company acquired the Vocalion Gramophone Company.³

At first glance and as a *fait accompli* any two international trusts may seem very much alike, but in their development they may have been entirely dissimilar. While one international trust may bring together under unified control a number of *existing* undertakings, another may begin as a single national undertaking and extend its own organization and activities into other countries. The latter type does not have to achieve unified control, for control is unified from the beginning; but it has to create its foreign undertakings before it can control them. The other type of international trust, on the contrary, has to create unified control, but not the various undertakings over which

¹ *Economist*, 12th and 19th November, 1932.

² *Stock Exchange Year Book*.

³ *Stock Exchange Year Book*. *Economist*, 12th November, 1932 pages 887-8.

that control is to be exercised. Actually, the line of distinction between these two forms of international organization often becomes blurred, because almost all international businesses, sooner or later, find it desirable to acquire (wholly or partly) and control existing undertakings outside the country of their origin, as the requirements of the business dictate or as good opportunities offer. The advantages of manufacturing inside a highly protected country in order to avoid heavy import duties have led to the erection of new factories all over the world in recent times. But such establishments are vulnerable to government interference of the dictatorial and totalitarian type.

An international business may begin by establishing branch companies in foreign countries, and, later, when the force of its competition has been felt, or its potentialities realized, it may be able to arrange to combine with native undertakings. Thus, the firm of Lever Brothers, after gradually bringing the bulk of the British soap industry under its sway, also acquired control of numerous undertakings in France, Germany, Switzerland, the United States, Japan, Canada, Australia, and Africa; and, with an eye upon the sources of its raw materials, purchased concessions in West Africa, the Belgian Congo, and the Pacific Islands. Later (1919-20) it acquired the Niger West African produce combine, and to-day the Lever combine (which, as we have seen, is itself part of the colossal Unilever combine) holds in its hands the bulk of the British soap, glycerine, and candle industry, and "occupies a position scarcely less prominent in several countries abroad."¹

The remarkable, if somewhat crooked, financial genius of Ivar Kreuger built up the Swedish Match Company and the Kreuger and Toll organization—a trust with world-wide ramifications which secured the grant of match monopolies by making or guaranteeing loans to governments. Kreuger wedded "the acquisition of markets to the provision of

¹ Fitzgerald, *op. cit.*, pages 60, 81.

capital," and as time went on he drew his financial resources increasingly from foreign countries. He tapped the American money market in the post-war years "in favour of countries faced with a serious shortage of funds," and, it must be added, in favour of the Kreuger organizations. In certain years (says a writer in the *Fortnightly Review*)—¹

His redistribution of capital has been so prodigious as to make a profound impression on the international balance of payments. Thus, in 1929, Sweden, and not Germany, was the European country which borrowed the largest amount of funds in New York. This capital was subsequently re-lent to countries which could not raise funds themselves in New York.

A list of loans made by Kreuger and Toll to various European governments includes—

\$6,000,000 to Poland to rehabilitate farmers after the Upper Silesian floods, and to consolidate short-term debts.

\$22,000,000 to Yugoslavia for the Government Monopolies Institute, whose profits are to be used for the further economic development of the country.

\$36,000,000 to Hungary to finance land reform.

\$30,000,000 to Roumania for monetary stabilization and economic development.

\$6,000,000 to Latvia for farm relief, road and railway building.

\$2,000,000 to Esthonia for railway building.

\$125,000,000 to Germany to consolidate short-term indebtedness in a time of financial stress.²

The usual arrangement attaching to loans of this kind was that the subsidiary match manufacturing companies paid the match-manufacture royalties to Kreuger and Toll

¹ T. G. Barman in *Fortnightly Review*, December, 1931, page 724. For Mr. H. G. Wells's comment on Mr. Barman's over-optimistic views see *Work, Wealth and Happiness of Mankind*, pages 824-5.

² T. G. Barman in *Fortnightly Review*, December, 1931, page 725, cf. *Economist*, 19th March, 1932, page 615; and 24th December, 1932, page 1205.

instead of to the government of the country in which they operate. £15,000,000 were paid into the French exchequer by the Kreuger trust in exchange for the French match monopoly. Interests were acquired in the British match industry, but here no monopoly could be purchased. The Japanese market was captured, and a chain of factories was established in India. The Committee on Industry and Trade reported that, in addition to a sulphite pulp and paper mill, three match-making machinery works, three chemical manufacturing plants, three lithographic printing works, sawmills, timber lands, and transport undertakings in Sweden, the Swedish Match Company held "sole or controlling interests in match factories in various parts of the world. It controlled the International Match Corporation, an American company (formed in 1923), owning 75 match manufacturing plants in various countries. Together with the parent company, the International Match Corporation controlled over 150 match factories in 28 countries,"¹ employing some 60,000 workers, five-sixths of them in countries other than Sweden.² In 1928, Kreuger claimed that he controlled the match trade in France, America, Norway, Sweden, Poland, Peru, Greece, New Zealand, Australia, South Africa, and Japan. He also asserted that he had secured match monopolies in Italy and Spain, but this was found to be quite untrue.³ The foreign securities received against loans were generally held by Kreuger and Toll, a financial organization which has not stopped at

¹ *Factors in Industrial and Commercial Efficiency*, page 114.

² *Economist*, 28th May, 1932, page 1196.

³ *Economist*, May, 1932, page 1090. Nobody seems to have suspected Kreuger. For nearly a decade before his death he deceived everybody, and at the news of his suicide the world was disposed to be sympathetic. Kreuger had made a gallant fight of it; "a bold bid to become a great force for good in the world," but circumstances had overborne him. Then came the examination of his papers and the discovery of a number of rubber stamps giving facsimile signatures of prominent business people in Sweden. Swiftly the whitewash peeled off, and Kreuger stood discovered—a veritable prince of swindlers. "It is not as a business man," said the administrators of his bankruptcy, "but as a criminal that Kreuger was distinguished from his fellow men."

match monopolies, but has also taken a hand in the telephone industry.¹

The Ford Motor Company is another outstanding example. Working from its centre in the United States, it set up one or more branches in nearly every country in the world, both the capital and the car parts being supplied from America. Then, when the time seemed ripe, the foreign branch companies were gradually reorganized and some stock in each (40 per cent of the total capital in the case of the English Ford company) was sold to investors in the country in which the particular branch company was situated. Supreme control, however, still vests in Mr. Ford and his colleagues at Detroit. Fords, it must be remembered, do not hesitate to go into any industry outside their own (e.g. woollen weaving, or rubber planting) if they cannot obtain exactly what they require at reasonable prices from existing producers. The reorganized English company is ceasing merely to assemble parts. Henceforth it will actually manufacture some of the parts it requires. In Germany, 40 per cent of the stock of the reorganized Ford company was sold to the I.G.

¹ The following is an extract from *The Observer* of 1st May, 1932—

"The *Nya Dagligt Allehanda*, of Stockholm, learned that a preliminary agreement has been reached between the L. N. Ericsson Telephone Co., of Sweden, and the International Telephone and Telegraph Corporation of America, in connection with the loan of eleven million dollars (approximately £2,200,000), which the late Ivar Kreuger raised with the International Corporation on the security of the majority of the "A" shares in the L. N. Ericsson Telephone Company.

"The newspaper understands that the fundamental lines of the preliminary agreement are that the three Swedish banks, the Svenska Handelsbanken, the Stockholms Enskilda Bank, and the Skandinaviska Kredit Bank jointly take over 80 per cent of the shares, while the International Telephone and Telegraph Corporation will take 20 per cent.

"The Mexican Telephone Co. will remain as a daughter company of the L. N. Ericsson Telephone Co., but the latter's concessions in France and the Argentine are to be transferred to the International Telephone and Telegraph Co.

"The reason for this transference is that these two concessions will demand a large investment of capital during the next few years, probably about 35 million kronor (approximately £2,000,000)."

The International Telephone and Telegraph Corporation also has successfully followed the loan-making method to obtain the monopoly of automatic telephone installation in Greece.

Farbenindustrie, which is an extensive and powerful combine, so that at this point Fords made an international link outside their own chain of companies. In 1930 the Ford Company and its associated companies were employing on almost identical work Englishmen, Irishmen, Dutchmen, Frenchmen, Danes, Germans, Italians, Spaniards, Swedes, Finns, and Turks.¹ But, more recently (1934-5), Fords have sold their entire holding in the German subsidiary and a good deal of their interests in the French subsidiary, owing mainly to the impact of politics and crude nationalism upon the economic situation. The Ford Italian subsidiary is not doing well for the same reasons.

Another good example of an international business is the Dunlop Rubber Company, Ltd. This company was formed in 1896 to take over a business engaged in the manufacture of pneumatic tyres, and it has since steadily broadened its basis and the scope of its activities and international patent-alliances until it now occupies a unique position among rubber manufacturing undertakings. Down to 1925 its activities were confined to the manufacture of tyres, golf and tennis balls, and steel wheels; but thereafter it acquired a number of undertakings manufacturing other kinds of rubber goods, such as rubber footwear and clothing, surgical appliances, hot-water bottles, hoses, cables, and rubber flooring. Besides its chief works at Birmingham, the Dunlop company owns, either directly or through subsidiary companies, works at Coventry and Dudley, rubber estates in the Malay States and Ceylon, cotton mills at Rochdale, and large factories in France, Germany, Japan, and Australia. In addition it has established branches and selling agencies for the distribution of its products all over the world. It owns or controls the Dunlop Tyre and Rubber Corporation of America, the Dunlop Rubber Company (China), Ltd., the Dunlop Rubber Company (India), Ltd., Dunlop Cotton Mills, Ltd., Dunlop

¹ Speech of Chairman of Ford Motor Co. Ltd. (Great Britain), March, 1930. *cf. Economist*, December 16, 1933, page 1186.

Plantations, Ltd., Tyre Investment Trust, Ltd., the India Tyre Co., Ltd., and a number of other companies. The issued capital is now (1937) over £12,733,000, and outstanding debenture stocks total approximately £3,433,000.

Within the past twenty years, Turner & Newall, Ltd., manufacturers of asbestos goods, magnesia and cork insulation, and pharmaceutical products, have acquired and now control, mining, manufacturing, and marketing companies producing or handling similar or allied products in the British Isles, Africa, and the United States. The issued capital was £6,772,595 in 1937.

The practice of developing subsidiary manufacturing undertakings in foreign countries has been followed by the larger electrical manufacturers. In the case of Austria, for example, the principal firms in this industry are either of foreign origin or closely connected with foreign undertakings. Again, subsidiaries of the Brown Boveri Company of Switzerland are to be found in various countries; and the General Electric Company of the United States controls the Canadian General Electric Company, the British Thomson-Houston Company (one of the largest firms in the British industry), and is closely associated with the Dutch firm of Philips, which in its turn is linked with the Osram Company.¹ Sometimes, as in the case of France, high tariffs or the depreciation of the exchange has led to the settlement of foreign electrical undertakings in a certain country.² The two sister companies, Siemens and Halske and Siemens-Schukert, besides establishing many plants in various parts of Germany, have constructed an intricate network of financial and sales organizations which covers practically the whole world. The Siemens-Schukert undertaking, for example, has a branch in Vienna which maintains a chain of sales and technical offices throughout the Balkan States.³ The British General Electric Company, Ltd., owns or is

¹ *Factors in Industrial and Commercial Efficiency*, page 113.

² *Survey of Metal Industries*, page 335.

³ Knight, Barnes and Flugel, *Economic History of Europe*, page 655.

interested in nearly a dozen British companies; it is associated financially with the Italian firm of Pirelli through the Pirelli-General Cable Works, Ltd.; it controls various companies in the British Empire, South America, China, and the Continent of Europe; it has invested substantial sums in a number of electricity supply companies, and it has a working agreement with the Oerlikon Company of Zurich, Switzerland, under which this company's experience in connection with electric traction is placed at the service of the General Electric Company. The English Electric Company, Ltd., controls in Great Britain a group of companies engaged in the manufacture of heavy electrical and allied products; it has working arrangements regarding very large contracts (e.g. for public works) with many of the most important contractors in this country, and it is "associated" with companies in Canada, Australia, France, Belgium, and Japan.¹

The International Telephone and Telegraph Corporation, registered in the United States in 1920, controls international telegraph services throughout the U.S.A., cable services to the West Indies, Central and South America, and some of the principal countries of Europe and the Far East; and national and long-distance telephone systems in eleven countries. It has manufacturing plants in fourteen countries, and it directly controls various companies in Britain, France, Spain, Cuba, Mexico, and South America. Also it is "associated" with, but does not control, the Constantinople Telephone Co., Ltd., the Cuban American Telephone and Telegraph Co., the Commercial Pacific Cable Co., and the L. N. Ericsson Telephone Co.²

In April, 1929, all the principal British cable companies and Marconi's Wireless Telegraph Co., Ltd., were combined to form Cables and Wireless, Ltd.—a giant combine which controls through the subsidiaries of its constituent

¹ *Survey of Metal Industries*, page 359.

² Controlled by Kreuger and Toll (*Stock Exchange Year Book*, 1932).

companies and its holding of shares in Imperial and International Communications, Ltd., more than one-half of the world's cable mileage, and a large portion of the world's radio systems.¹

Before the War the largest undertaking in the explosives industry in Great Britain was the Nobel Dynamite Trust, which had close working agreements with German and other foreign groups. After working during the War as a single giant unit, under Government control, the chief British explosives manufacturers decided to amalgamate. Thus the new company—Nobel Industries, Ltd.—came to occupy a monopolistic position in Britain. There were, it is true, foreign makers “with all the necessary resources, but the opening of branches by them in this country would probably be subject to rigid Government control if it were permitted at all.” International agreements also stood (*inter alia*) in the way of large foreign imports into Great Britain. Nobel Industries, Ltd., was “very closely associated with the Du Pont combine in Canada, U.S.A., and South America; it had direct financial interests in Belgium, France, Germany, and Spain, and . . . trade alliances with leading continental manufacturers; while, in conjunction with the De Beers Consolidated Mines, it dominated the explosives industry in South Africa.”² But the end of the chain is not yet in sight, for this combine (which also had certain other holdings not, apparently, directly connected with explosives) is now absorbed by a more gigantic combine with still greater international interests and ramifications. In October, 1919, Brunner Mond and Co. made an agreement with Lever Brothers whereby they acquired the exclusive right to supply soda ash to Lever Brothers and the majority of its associated companies, and “Brunner Mond, in return, undertook not to be concerned or interested in any way in the manufacture or sale of soap in any part of the world (except to the extent of its existing

¹ *Stock Exchange Year Book*, 1933, page 1409.

² Fitzgerald, *op. cit.*, pages 93-4.

interests in certain European and American concerns, which undertakings it was, moreover, to try and induce to withdraw from the soap trade). The importance of this agreement becomes clear when it is realized (1) that the Lever combine controls the vast bulk of the soap industry in England and has still greater soap interests abroad; (2) that in 1919 (when the Lever combine was much smaller than at present) not much less than half Brunner Mond's home deliveries of soda ash were made to soap manufacturers; and (3) that Brunner Mond's chief product is soda ash (the primary alkali)."¹ Brunner Mond and Co. stated, in 1921, that they were in "close alliance" with the Solvay group of Belgium and the United States. Then, in 1926, came the new combine—Imperial Chemical Industries, formed to acquire Brunner Mond and Co., United Alkali Co., British Dyestuffs Corporation, and Nobel Industries, Ltd.; four undertakings which dominated respectively the British soda, dyestuffs, and explosives industries. The purchase price was the allotment of shares of a par value of £56,803,000.

The new company—the largest merger ever seen in British industry down to that time—took control of policy and finance, but left undisturbed the detailed management of the constituent undertakings and their subsidiaries. Among the advantages claimed for this amalgamation of non-competing companies, the late Lord Melchett expressly included power to deal with similar large combines in other countries on terms of equality. This points in the direction of an extension of international agreements.

In addition to numerous subsidiaries, Imperial Chemical Industries, Ltd., has large holdings in a considerable number of "associated" undertakings, including Imperial Chemical Industries of Australia and New Zealand, the Allied Chemical Company of the United States, Canadian Industries, Ltd. (in which the Du Pont de Nemours Company is also a large shareholder), the General Motors Corporation, I.G. Farbenindustrie, the International Nickel Company, and

¹ *Ibid.*, page 81.

African Explosives and Industries, Ltd., which I.C.I. controls in partnership with De Beers Consolidated Mines, Ltd. The I.C.I. interests in Argentina were amalgamated with those of the Du Pont Company in 1933-4.¹ The main products of the combine are heavy chemicals, fertilizers, and explosives, but it also engages in other branches of production, e.g. the manufacture of insecticides, dyestuffs, coal-oil, non-ferrous metals, motor-cycles, motor radiators, lightning fasteners, paints, varnishes, insulators, and leather cloth. The issued and paid-up capital of Imperial Chemical Industries is over £77,000,000, in cumulative preference, ordinary, and deferred shares. Its investments are classified into three groups: (a) investments in subsidiary companies in which I.C.I. holds over 50 per cent of the shares; (b) investments in associated companies in which the I.C.I. holding is 50 per cent or less; and (c) other investments. The investments in subsidiary and associated companies appear in the published accounts at or under cost, or as revalued on the basis of earning capacity on the liquidation of Nobel Industries, Ltd., in 1928. Thus over three-fourths of the investments are in class (a); over one-twelfth in class (b); and over one-eighth in class (c). At the fifth ordinary general meeting of Imperial Chemical Industries in April, 1932, Sir Harry McGowan (now Lord McGowan), the chairman and managing director, stated that—

The shares and debentures in, and advances to, subsidiary companies shown in the balance sheet at £69,264,978, represent in the main the company's holdings in the eight manufacturing groups referred to in the report, namely, Alkali, General Chemical, Explosives, Fertilizer and Synthetic Products, Dyestuffs, Leathercloth, Lime and Metals, in Imperial Chemical Industries, Ltd. of Australia and New Zealand, and in our foreign merchanting companies. The shares and debentures in associated companies standing in the balance sheet at £6,522,062 represent in the main our

¹ Reports of Sixth and Seventh Annual General Meetings of Imperial Chemical Industries, Ltd., 1933 and 1934.

investments in African Explosives and Industries Ltd., Canadian Industries Ltd., and a number of smaller Dominion and foreign companies engaged in industrial activities cognate to our own. The marketable and other investments standing at £9,540,677 mainly represent investments in large industrial companies with which we have, directly or indirectly, trade connections. The chief items are investments in the General Motors Corporation, Du Pont & Co., and the Allied Chemical Company in the United States, the International Nickel Company in Canada, the I.G. Farbenindustrie in Germany, and Joseph Lucas & Sons in this country. . . . My colleagues and I have been convinced believers in the long-range wisdom of international agreements as instruments of world rationalization of industry. Co-operation, we have always found, is better in the long run than competitive warfare. . . .

Because we believe that only through more closely-knit industrial entities . . . can British goods enlarge their world markets, and because Imperial Chemical Industries is to-day regarded as the British prototype of large scale business, I propose to outline to you the principles we follow . . .

Our principal subsidiary companies in the United Kingdom are organized in eight groups. . . . Every group contains a number of separate companies, the products of which are cognate to each other. For all purposes of control and administration we treat the companies that form one group as a unit. The statutory Board of each of these companies is the parent company, viz. Imperial Chemical Industries, so that there is a uniform legal controlling authority vested in your Board. This method of control ensures harmonious working and co-ordinated direction over the whole wide field of our activities. Group or company inter-competition is avoided and there is no conflict of authority, and wasteful duplication is eliminated. Each Group has a subordinate Board, which is in reality the Group Executive, consisting entirely of members of our staff, some attached to the companies within the group and the remainder to head office; none of your directors acts in this capacity. All technical, commercial, financial and administrative problems concerning one group are therefore studied in the first place as affecting one entity . . .

At the Annual General Meeting of Imperial Chemical

Industries Ltd., on 21st April, 1938, Lord McGowan described further changes in organization—

The time has come . . . for a step which will enable the immediate problems arising from the ever-increasing breadth of your company's business to be handled with the rapidity the future is sure to demand. The change centres round one key point. I have freed myself from the task of taking everyday decisions on current business. That responsibility has been handed to . . . the (seven) executive directors now entrusted with the several sections of administration, namely, commercial, financial, overseas, personnel, research, technical, and the groups central committee.

With the exception of the groups central committee, each director has associated with him three of his colleagues. By this means we have formed links of responsibility and co-ordination on larger issues. . . . The general purposes committee . . . has been reconstituted as a management board, over which I preside. It will meet regularly and will carry out collectively the duties I have hitherto executed as managing director. So far as they feel it proper within prescribed limits, these executive directors will act independently on their own or their committee's responsibility. Beyond those limits they will bring major problems to the management board, which will also be made aware of their individual decisions. On that board Lord Ashfield, Lord Weir, and Colonel Pollitt will serve. Standing apart from the day-to-day administration, they will help us on general policy more intimately than is possible at the full board, while constituting a valuable link with the other non-executive directors.

The functions of the operating groups and the powers of the delegate boards which control their activities . . . remain unchanged. The board regard the new structure as a natural development of its policy of decentralization.

In the sewing-cotton section of the English cotton trade control has been concentrated, since 1897, in the hands of "a powerful trust, international in its ramifications, and headed by the closely related undertakings of J. & P. Coats, Ltd., and the English Sewing Cotton Company."¹ About the year 1890 the well-established firm of J. & P. Coats

¹ Committee on Industry and Trade, *Survey of Textile Industries* (1928), page 39.

became a limited company, and by 1896 it had absorbed five competitors, gained control of sixteen factories, including mills in Canada, Russia, and the U.S.A., and reached a predominant position in that section of the trade.¹ The immediate result was another combine—the English Sewing Cotton Company, Ltd., formed in 1897 to take over fourteen businesses. In the following year the new combine acquired nearly the whole of the common stock of the American Thread Company;² but this connection was dissolved in 1914 by decree of the United States District Court of New Jersey.³ It now has a capital of £3,000,000 and controls sixteen other companies, including Ermen and Roby (Armentières), Ltd. Both J. & P. Coats and the English Sewing Cotton Company are said to control many foreign companies, and although, apparently, they are not financially interlocked, they agree not “to interfere with each other’s business,” and in some markets the two combines sell their products through a single distributing organization.⁴

Three other examples of international expansion may be mentioned briefly. Rolls-Royce, Ltd., the makers of the well-known motor-cars and aero engines, owns the entire capital of Bentley Motors (1931), Ltd., controls Automobiles Rolls-Royce (France), Ltd., and has a substantial holding in Rolls-Royce America Inc. On the retailing side we have F. W. Woolworth & Company, which has about 2,000 branches in the United States, Canada, and Cuba, over 80 in Germany, and about 550 in Great Britain; and Debenhams, Ltd., the well-known drapery business, which directly or indirectly controls or is “associated with” some forty subsidiary companies in Great Britain, and has branches in France, Belgium, United States, Australia, and Canada.

¹ Donaldson, *op. cit.*, pages 319–20. In the early nineties, Coats’s chief rivals—Jonas Brook & Co., J. Chadwick & Co., Clarke & Co., and Kerr & Co.,—combined to form the Central Thread Agency. After J. & P. Coats had bought up the whole of this organization, their capital stood in the neighbourhood of £12,000,000.

² *Stock Exchange Year Book*, 1932.

³ *Journal of Political Economy*, October 1920, page 672.

⁴ Fitzgerald, *op. cit.*, pages 14–16.

CHAPTER III

FORMATION (I): AIDS AND INCENTIVES

ALL forms of industrial combination arise from much the same necessities, desires, difficulties, or circumstances. In very general terms these are—

(a) The economic necessity of keeping productive plants fully and regularly employed.

(b) The desire to escape from severe competition, price-cutting, and so forth.

(c) The desire to substitute certainty for the uncertainties of business as previously conducted.

Among the foremost "causes" or initial impulses and incentives to the formation of international combines we find, (1) severe competition arising from rapid technical progress in several countries, not accompanied by increasing effective demand; (2) the fear of "over-production" and fierce competition; (3) marked and continual fluctuations of prices; (4) increasing difficulty of producing successfully unless further expensive research is undertaken and/or patent rights and the results of research are "pooled" or exchanged; (5) the arbitrary formation of political units without regard to economic factors. (Many international agreements would not be international if political frontiers had not been drawn through natural economic units.) (6) The attraction of the prospect of widening profit margins by substantial reductions of costs. The total volume of sales of an international combine over a long period are generally subject to a smaller amount of variation than the sales of individual independent producers. Therefore, the margin of productive capacity necessary to meet such moderate normal fluctuations of demand will be less for an international combine than the aggregate of margins of many independent producers. This means that the combine

can operate more economically as regards finance, stocks of goods, and capital equipment than its members could if they operated separately. More accurate advance-planning of production and greater regularity of employment of both capital and labour are possible. Moreover, market information can be centralized and circulated to all members, and if circumstances require it, a simultaneous modification of policy can be made to meet the situation. Lastly, we must not leave out the genius and "drive" of those restless industrial magnates, like Kreuger and Stinnes, whose insatiable itch for wealth and power leads them to acquire a vast assortment of "interests" both inside and outside their own countries.

Given one or more of these initial impulses, further progress turns upon the existence of favourable conditions, for "the fact of cartelization is not solely dependent upon the desire to combine, but also upon the possibility of doing so."¹ The conditions most favourable to the formation of international combines may be set forth as follows—

1. The existence of a small number of producing organizations.

2. The natural scarcity of a commodity, or the concentration of supplies in a limited number of regions.

3. The existence of national combines having authority to negotiate on behalf of their member firms or shareholders.

4. State approval and assistance, e.g. when various governments regard the formation of an international combine as likely to further the interests of their respective states.

5. The existence of international financial interlacing.

6. Where the commodity produced is a raw material or in the early stages of manufacture.

7. Ease and cheapness of transport and other means of communication over great distances.

Dr. Hermann Levy lays great stress upon the "revolution in transport" after 1880, which "brought about an unprecedented development in the structural character of

¹ H. Levy, *The New Industrial System* (1936), page 52.

national and international production." There must be, he argues, "some general force which is at the root of all combination in industry, but which manifests itself, however, in very different ways . . . some primary and universal condition or tendency, which must be traced from all its special and greatly diverse manifestations."¹ This general force is, in a word, transport. Now, undoubtedly, the improvement and cheapening of transport facilities, and the release of the major part of industry and trade from local fetters, constitute a *condition* which is important; but certainly not more important, primary and universal, than the desire to eliminate severe competition, to control prices, and reap increasing profits with as little risk as possible. The coal industry, for example, utilized the new transport at least as much as any other industry of the first rank; yet, as Dr. Levy admits, although the German coal industry is famous for its cartels, there has never been a great combination movement among the British colliery owners, and there is so far no international coal cartel. Therefore we may ask why the revolution in transport, on which Dr. Levy relies, permitted such different results to persist in the German and British coal industries?² The answer is that the "transport explanation" is inadequate, although very significant taken in conjunction with other powerful incentives and important conditions.

If two or more of these conditions co-exist the chances of successful formation are, of course, enhanced. Study of various international combines shows that there are, in fact, very few cases where the formation and rise of a combine can be said to have been assisted by the existence of

¹ *Ibid.*, page 60; cf. also pages 65, 76, and 84 *et seq.*

² Coal is, indisputably, an important raw material; but Dr. Levy oversteps the mark when he asserts that it is "of natural scarcity" and produced in a limited number of regions. Compared with natural nitrate, or mercury, or even rubber or tin, coal deposits are rather widely (though not evenly) distributed over the globe; a fact which British coal exporters have realized more sharply than ever, since the War encouraged the working of local deposits in many parts of the world.

one condition only. More frequently the original impulse or impulses and several favourable conditions are seen to be closely intertwined. Let us examine some leading examples.

In the shipping industry the "conferences" or "rings" are the result of over-production of shipping tonnage, and severe competition—or the fear of it—between the shipowners of the various sea-going nations. "In the years immediately prior to and succeeding the opening of the Suez Canal in 1869, the output of steam tonnage was very great. The steam tonnage of the United Kingdom alone rose from 454,327 in 1860 to 1,112,934 in 1870, and 2,723,468 in 1880. The requirements of trade were outstripped, and a period of severe competition among shipowners ensued, with the result that (freight) rates fell heavily. In the Eastern trade . . . the struggle was so keen that several of the lines had to withdraw, and the remainder with a view to self-preservation began to draw together so as to stave off disaster by coming to arrangements between themselves and with their customers." The shipping companies were confronted with a double problem; for they had to find a means of obtaining and maintaining remunerative freight rates, and "they had to conform to the new requirements of trade by giving regular sailings of high class vessels dispatched at dates advertised beforehand, whether full or not full. At the same time the general increase in the cargo space of vessels enhanced the risk entailed in conforming to these requirements."¹ The shipping conference or ring, and the deferred rebate system, were the outcome of the shipowners' attempts to find a solution.

The Royal Commission of 1909 defined a shipping conference as "a combination more or less close of shipping companies formed for the purpose of regulating or restricting competition in the carrying trade on a given trade route or routes. The vessels employed by these companies are

¹ *Report of the Royal Commission on Shipping Rings* (Cmd. 4668, 1909), pages 11, 76.

usually of the class known as liners, i.e. vessels of high class and speed, sailing and arriving at fixed dates advertised beforehand. In addition to mail steamers and passenger steamers they include vessels which carry cargo only and are known as cargo-liners. In some cases vessels which operate elsewhere and at other times as tramps are also employed by the Conference Lines. The operations of a conference are confined to a particular trade route, that is to say, the engagements which the various lines enter into with one another only apply to the trade within certain definite areas or between specific ports. A steamship company may be a member of several conferences, but its engagements in one are independent of those in any other. . . . The alliance then is not one of steamship companies for all purposes, but only as to their operations within a specified area."¹ The members of a conference agree that they will all charge the same freight rates, and, in certain cases, the agreement also provides that traffic shall be shared either by restriction of the number of sailings of each member, or by dividing the ports of sailings between them, or by pooling some part of the freight upon all or certain portions of the cargoes. In order to meet the actual or potential competition of non-conference shipowners the allied companies offer shippers a deferred reduction of freight rates if, at the end of a certain period (e.g. four or six months), they have not shipped any goods by non-conference vessels; and this reduction or rebate (usually 10 per cent) will be paid to them if at the end of a further similar period they have continued their "loyalty" to the conference by confining their shipments to conference vessels only. Thus a "tie" is formed which is automatically applicable to all shippers who care to avail themselves of it within the region served by the Conference Lines. The intention is, of course, to deter shippers from making any shipments whatever within the particular region by any

¹ *Report of the Royal Commission on Shipping Rings* (Cmd. 4668, 1909,) page 9.

non-conference vessel, and those who do so lose their right to the rebate not only in respect of goods shipped during the period in which they are "disloyal," but also in respect of all goods shipped during the previous period. "This penalty, by reason of the large sums at stake, may act as a powerful deterrent."¹ Not infrequently the rebate thus forfeited by a single shipper would amount to several thousands of pounds.

The first shipping conference was the Calcutta Conference, formed in August, 1875; but the deferred rebate system, as described above, was not introduced until 1877, and at first it applied solely to shipments of Manchester piece goods. The formation of other conferences quickly followed, and in these the membership was almost entirely British. But as the Continental shipping lines developed, the danger of severe competition and "rate wars" loomed up. The idea of amalgamation between the various companies (e.g. between British and foreign lines) was acceptable neither to the companies nor to their respective governments. Therefore the choice lay between competition on the one hand, and international agreements on the other. "The East and South Coast ports of the United Kingdom are peculiarly open to attack by Continental Lines. A German Line, taking its main cargo at, say, Hamburg and Antwerp, could, without going far out of its course, come into Middlesbrough or Hull or London to fill its empty spaces, and, in order to do so, would be willing to accept cargo at lower rates than the British Lines to which the traffic from these ports was the sole or chief source of revenue. The Continental Lines, on the other hand, feared reprisals from the British Lines. In cases where conferences already existed this international competition or the fear of it has led to the extension of the conference system to cover Continental trade. In other cases it is to foreign competition rather than to competition between British Lines that the original establishment of the conference has been due. . . . The agreement which

¹ *Ibid.*, page 33.

the parties have made with one another has taken various forms. . . . But . . . it has generally been based upon—

1. A division of areas.
2. A consolidation of rebate systems, under which the same rebate conditions apply to the trade not only from the United Kingdom but also from the Continent.
3. An agreement or understanding that the same rates are to be charged on similar goods from the United Kingdom and the Continent.”¹

On the Far-Eastern trade routes Japanese companies are allied with British and other European lines. The Atlantic Conference (otherwise referred to as the “North Atlantic Shipping Pool”) was an agreement between British, American, Belgian, Canadian, German, Dutch, and Russian lines to “regulate” steerage traffic between the United States and Canada and European ports. The International Mercantile Marine Company concluded agreements with two German steamship companies in 1902, and with the Atlantic Conference in 1908. The Mediterranean Conference, dating from the same year, was very comprehensive: in all it comprised fifteen lines—German, British, American, French, Italian, and Spanish.²

Detailed study of these international shipping combines reveals salient features similar to those of international combines in other industries, e.g. the reservation of certain areas or ports to certain members of the combine, the apportionment of other areas, and the use of quota and pooling arrangements. Two examples may be taken from the *Report of the Royal Commission on Shipping Rings* (page 24).

Calcutta Trade, Homewards. In this trade a proportion of the freight on tea is pooled and divided among all the members of the conference in an agreed proportion. As practically all the tea is carried to London, the lines trading exclusively to the West Coast ports carry little or none.

¹ *Report of the Royal Commission on Shipping Rings* (Cmd. 4668, 1909), page 20.

² Liefmann, *Cartels, Concerns, and Trusts* (1932), page 150.

They share, however, in the pool, as also do some of the conference steamers which occasionally load from Calcutta to Continental ports and Dundee. It is understood, too, that steamers bringing tea from Chittagong to London are also in the pool.

Far East Trade, Outwards. Lancashire and Yorkshire goods, i.e. yarn and all fabrics of wool, cotton and silk, are regarded as cargo in common and the six lines which carry them have agreed that the carriage of this traffic shall be apportioned among them in certain percentages. Lines which carry more than their percentage have to return the surplus to the pool, and payments are made therefrom to recoup those lines which have carried less than their percentage.

Pooling arrangements of this character regulate competition by apportionment of traffic by results, as distinct from apportionment by anticipation, such as is effected by restrictions of areas or of sailings. From the economic point of view they have this advantage, that whereas under a system of restricted or proportional sailings the supply of tonnage may conceivably lag behind the demand, under the pooling system . . . a greater latitude is given to each line to meet the demand. All the lines are interested in the aggregate freight being as high as possible, although each line only receives a fixed proportion of that aggregate.

International combines such as the shipping conferences, fortified as they are by the deferred rebate system, represent a "certain kind of monopoly"; but it is a monopoly subject to several important limitations. There is, firstly, the potential competition of non-conference vessels of all nationalities. Ships are exceedingly mobile, and since the War the total supply of available tonnage has been constantly and, at times, chronically, in excess of world demand. Secondly, the continued abuse of monopoly power might result in combination among shippers, or (rather more probable) State action to prevent the abuses. In certain countries the deferred rebate system is already illegal,¹ and if public opinion be sufficiently hostile, State-owned shipping lines to run in competition with conference lines are not out of the question. Thirdly, conference ties are loose, while the connection between certain conference lines

¹ *Report on Deferred Rebate System* (Cmd. 1802, 1923).

and their respective governments is very close, so that at any time certain lines may withdraw from the combine either voluntarily or under pressure from their governments. Lastly, it must be noted that competition in facilities still exists even between members of the same conference. The Royal Commission came to the conclusion that "a Shipping Conference making use of the system of deferred rebates did possess, so far as the shipper of general merchandise is concerned, a limited monopoly." The strength of each conference's limited monopoly depends upon the "continuous hold" secured over shippers by the deferred rebate system, the mutual agreements or "understandings" among the members of different conferences not to encroach upon each other's preserves no matter how depressed trade in their own region may be, and the continued adhesion to the conferences of a very substantial proportion of the lines giving regular sailings.

In addition to the more permanent conferences, special international agreements, such as the International Tanker Pool and the River Plate grain trade agreement between tramp shipowners, are made, from time to time, to deal with problems arising in certain sections of the industry or on particular routes. Thus, in December, 1937, at a meeting of the International Shipping Conference, the representatives of twelve countries—Great Britain, Denmark, Estonia, Finland, France, Germany, Greece, Yugoslavia, Holland, Norway, Sweden, and Spain—agreed to regulate competition among tramp shipping sailing to certain ports, and to maintain certain minimum freight rates and standards of wages and conditions of work for seamen during the year 1938. Belgium, Canada, Italy, and Poland also indicated their willingness to co-operate. The agreement covers chiefly the homeward routes from Australia, the River Plate, the St. Lawrence, and the Atlantic ports of the United States.

The international linoleum combine, which has strongly monopolistic tendencies, is the outcome of nearly twenty

years' experience of national and international combinations in the European linoleum industry. It has at its centre a Swiss holding company called the Continental Linoleum Union. This company holds the majority of the shares of three linoleum manufacturing companies—German, Swiss, and Swedish—and they in turn hold some of its shares, so that the four companies are closely interlocked. Profits are pooled and allocated in proportion to their holdings of share capital in circulation. The Continental Linoleum Union also acquired (1928) substantial interests in the Lithuanian and Norwegian linoleum industries, and in 1929 a Dutch and a French company decided to "adhere" to the Union, which thus has under its control eight factories in Germany and eight more in six other European countries. In addition, the Union has an agreement with the associated British manufacturers of linoleum, by which selling prices in the foreign markets are regulated. These facts are mentioned here because the germ of this international combine is to be found in national combines formed before the War (notably in Germany) under pressure of economic depression and low prices due to severe competition. It is, moreover, an industry which lends itself to large-scale organization. Great economies result from the standardization of the product; the limitation of the number of types and patterns; and the continuous manufacture of large quantities of each type and pattern. For this great masses of capital are required, under the charge of technical experts of long experience and proved ability.

For twelve years the spectre of over-production haunted the producers of calcium carbide, and eventually resulted in an international cartel, formed in 1910, comprising forty European companies owning sixty-one factories.¹ More recently (1930-31) rapid expansion of production of petrol in America and the competition of Roumanian and Russian supplies brought down the price of motor fuel to an unprecedentedly low level, which was unprofitable to producers.

¹ R. Jaccard, *op. cit.*, page 183.

Out of this situation arose determined efforts on the part of the producers to arrange an international agreement for the regulation of output and prices. The general lowness of prices, and the existence of combinations and groupings among the producing companies smoothed the way, and an international conference was held in Paris in July, 1932. It was attended by representatives of the Standard Oil exporting companies and various other important American exporters, by the Anglo-Persian Company, the Roumanian exporting companies, and the Royal Dutch Shell groups. The lukewarm attitude of the Roumanians was regarded as the major difficulty confronting the conference; and the Roumanians, realizing the strength of their key position, drove a keen bargain, and eventually succeeded in obtaining the right to export 65 per cent more oil than was originally proposed by the international group.¹ The agreement which eventually emerged provided for limitation of exports, including Roumanian exports, each group taking a quota based upon the percentage of their trade in export markets during 1931.²

¹ *Economist*, 3rd September, 1932, page 425.

² But the Roumanian producers did not immediately give effect to their part of the agreement. In December, 1932, *The Economist* reported that: "A conference has been held in Paris between the international oil groups and the Roumanian producers regarding the carrying into effect of the Paris Agreement which limited the exports of the contracting parties to the requirements of their respective markets on an approved quota basis. Since this agreement was reached the Roumanian producers have not been restricted in their output in accordance either with the spirit or letter of the agreement. The second conference has resulted in an agreement allowing a small increase in the proposed Roumanian quota, and it is hoped that the Roumanian producers will make this new agreement effective. The report was current in the oil share market that petrol prices would be raised by 2d. per gallon in the event of agreement being reached, but there was never any justification for this report seeing that a rise in petrol prices to-day would be contrary to the trend in oil prices in America at the present time."

Cf. also *Manchester Guardian Commercial*, 26th November, 1932, and 24th June, 1933, in which it appears that the Roumanians have removed the restrictions on their production on the ground that the United States producers have not carried out their part of the Paris Agreement and "have thus jeopardized the possibility of a rise in oil prices."

The ratification of this international agreement by producers representing approximately 80 per cent of the world output of petroleum was the signal for a rise of three-pence per gallon in the retail prices of petrol, benzole, and benzole mixtures throughout Great Britain (September, 1932). The position of the Russians was not clear, but the simultaneous rise of the price of "R.O.P." petrol by threepence per gallon points to some sort of understanding between Russian Oil Products, Ltd., and the associated oil groups.

Intense competition between the principal producers of a certain commodity or range of goods for limited basic supplies may end in the formation of an international combination mainly for the purpose of purchasing supplies jointly. Also, where stability of raw material prices is highly important to manufacturers, one of the courses open to them will be to enter a buyer's combine. An alternative course is to form or join an international combine of the "vertical" type. The International Association of Bone-glue Manufacturers is a good example of international combination in face of a shortage of raw materials. Bones are a waste product, necessarily limited in supply by the volume of consumption of the main products from which they are derived. In the post-war years the demand for bones exceeded the supply. Exports of bones were restricted by many countries, and the supplies from South America, which usually went to Europe, were being diverted to the rising bone-glue industry of the United States. The European bone-glue manufacturers eventually decided that in the circumstances it was desirable that they should discontinue not only their competition in the sale of the finished product, but their intense rivalry in the purchase of the scarce supplies of bones, for by competing they raised the prices of their raw material while they depressed the prices of their finished goods. Therefore, in September, 1926, the majority of the bone-glue manufacturers of Germany, Britain, France, Italy, Belgium, Switzerland, Austria, Hungary, Yugoslavia,

Czechoslovakia, Roumania, Poland, Denmark, and Sweden formed an international association to organize and develop the collection of bones, and to ensure a reasonably equitable distribution of this raw material; to collect and circulate to members accurate and up-to-date information regarding sales, consumption, and stocks of bones and glue throughout the world; to assist members temporarily holding large stocks of glue; and to extend the uses of bone-glue and its by-products. The association fixes a general minimum price below which its members are forbidden to sell, but it does not regulate sales or fix the actual prices charged. The Dutch and Lithuanian industries have subsequently joined the combine, and its members now produce 85 to 90 per cent of the total output of these countries and those mentioned above.

Other examples of international combinations primarily for joint purchase of raw materials or semi-manufactured articles can be cited. For example, the members of the International Borax Cartel are under contract to buy all their supplies of raw materials through the cartel's central purchasing organization, Borax Consolidated, Ltd.¹ "Other international buyers' cartels operated at one time or another in the leather and rubber industries."²

Before the War the International Federation of Master Cotton Spinners' and Manufacturers' Associations, formed in 1904, included the owners of nearly all the spindles in Europe.³ The suggestion that this International Federation might take the line of vertical integration and acquire cotton plantations was rejected because of the distance between mills and plantations, the unwillingness of planters to sell the plantations, and of spinners to raise or advance capital to purchase agricultural enterprises of which they possessed no technical knowledge. Instead, a consumers'

¹ For details of this company see Chapter I, *supra*, and *Stock Exchange Year Book*.

² *Journal of Political Economy*, October, 1920, page 661.

³ W. Oualid, *The Social Effects of International Industrial Agreements* (I.L.O., C.E.C.P. 94, 1926), page 12.

international cartel was proposed for the purpose of (a) preventing fluctuations in cotton quotations outside specified limits, (b) increasing the production of cotton¹ by guaranteeing to the growers remunerative prices, and (c) facilitating, if necessary, the reduction of the consumption of cotton by short-time working, organized internationally. The Federation was to set up a central buying organization, charged with the duty of buying cotton on behalf of the whole Federation and building up a raw cotton reserve, to be used when cotton prices had risen to a certain level, in order to prevent a rise beyond that point. Spinners purchasing cotton from the reserve were to pay a certain contribution per bale, the proceeds of which were to be used to compensate members who had suffered losses by working short time as a result of the Federation's decision. All this was never more than a project, put forward by Sir Charles Macara in 1907, and reiterated many times in ensuing years: but it demonstrates the possibility of powerful international combines of buyers, if the latter have a sufficiently keen appreciation of their common interests. Also, alongside of the International Federation of Master Cotton Spinners' and Manufacturers' Associations, there was the International Cotton Federation founded in 1905 for the purpose of taking appropriate action in order to increase the quantity and improve the quality of raw cotton; to regulate the supply of raw cotton, and to deal with "temporary over-production of manufacturers." Under the auspices of this body International Cotton Conferences were held in 1907, 1919, and 1921, and among those attending were American cotton planters, manufacturers, and brokers. Sir Charles Macara, the first president of this Federation, seems to have hoped for a comprehensive international combination between all the interests in the cotton trade—growers, brokers, spinners, and manufacturers—but although the Americans gave the Federation "informal support," their leading trade associations, such as the National Association of Cotton

¹ At that time consumers feared a shortage of raw cotton.

Manufacturers and the American Cotton Manufacturers' Association, did not become members.¹

A much more recent example of an international combination of buyers is the International Scrap Convention formed in 1937 by members of the International Steel Cartel, at a time when reviving trade and the rearmament boom were causing a world-wide scramble for steel scrap. The aim of the Convention was "to regularize scrap purchases and prevent prices from becoming prohibitive through fierce competition to secure command of supply." But at best the Convention could hope to administer only a minor check to the rise of prices, for there remained the competition of non-members and the fact that the Convention could do nothing to increase the sources of current supplies, while on the other hand, old accumulations were being rapidly used up in a dozen different countries.

The existence of a very limited number of units, whether they are large or small, has always been a condition favourable to the formation of international combines. The Bismuth Syndicate, which was in existence before 1880, and is one of the earliest international cartels, may be cited as an example. Again, the manufacture of mirror-glass in France and Belgium thirty years ago was concentrated in the hands of a very small number of manufacturers. These producers came together, agreed to limit output, and concluded the Convention Internationale des Glaceries (1904). Later, the combine extended its activities into Germany, until it gained control of some 75 per cent of the German output, and ultimately it embraced all the mirror-glass works in Belgium, Germany, Austria, Holland, and Italy, and all but one in France.²

In the nickel industry it was only necessary for two large companies to combine in order to secure a virtual world monopoly of nickel production. Nickel mining began in

¹ Macara, *Getting the World to Work* (1922), pages 13-14, 17, 89-97, 354-9.

² Donaldson, *op. cit.*, page 323; cf. also D. Warriner, *Combines and Rationalization in Germany* (1930), page 91.

the eighteen-sixties and eighteen-eighties, but the volume of production of this metal was negligible until the beginning of the present century. In 1885, the year in which the rich Canadian mines were discovered, the aggregate world output of nickel was only 950 metric tons. By 1914 world output had risen to 30,000 metric tons, of which Canada produced over 20,000 and French New Caledonia nearly 8,000. At the present time world output is about 45,000 metric tons, of which 94 per cent is mined in the British Empire, chiefly in Canada. In 1928 the American International Nickel Company and the English Nickel Company amalgamated and became the International Nickel Company of Canada. Thus we see that the predominant position of the Canadian producers in the nickel industry is due chiefly to a natural cause or geological "accident," but also, in part, to the formation of this combine.

Other companies have been brought in, and at the present time the International Nickel Company, which produces not only nickel, but copper, silver, gold, platinum and other metals, operates four hydro-electric plants, mines, and smelters in Ontario; refineries at Acton (England) and Clydach (South Wales), and in Ontario, where it owns the largest copper refining unit in the British Empire; rolling mills at Huntingdon (West Virginia), Glasgow and Birmingham; and the Tareni Colliery in South Wales. Henry Wiggins & Company, Ltd., and Birmingham Electric Furnaces, Ltd., are among the best-known English subsidiaries of the International Nickel Company.

What has been the result of the formation and consolidation of this virtual monopoly? Have the combined producers abused their position by curtailing production and raising prices? On this point the following passage from the *Economist* may be taken as a conclusive answer, for that journal always evinces a hearty and deep-rooted aversion to all output restriction schemes which raise prices and discourage consumption.

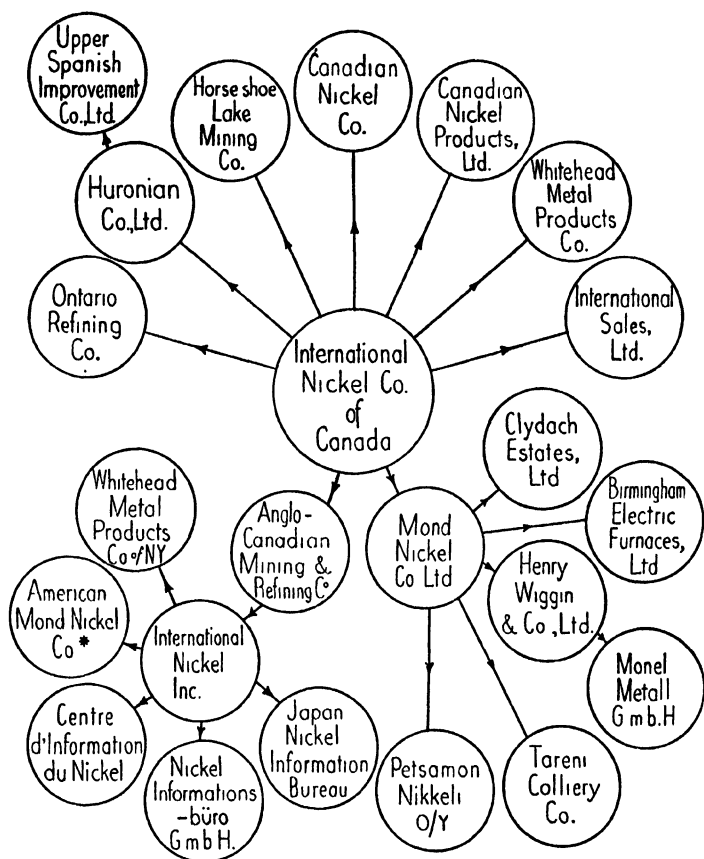
The Canadians, who in practice control the world market, have pursued a sound policy, not only in their search for new outlets for their product, but also in their regulation of prices. Owing to the increasing demand for nickel they could easily have pushed up prices in the years before 1930. But, in contrast to practically all other raw material producers, they maintained the pre-war price of £172.5 sterling per ton (99.5 per cent to 100 per cent pure metal) unaltered during the entire period of rising demand. It was only in 1931, when England went off the Gold Standard, that the nickel producers allowed prices to follow the pound; and in 1933, in spite of further slight depreciations of the pound and good demand, they once more lowered the price from £240 to £225-£230 per ton.

{ The result of this stable price policy is that buyers in the nickel market have far greater confidence than those in other markets. . . . In the nickel market . . . consumers have sufficient confidence in the policy of the producers to know that changes in price are dictated not by a desire to exploit the immediate market situation, but by consideration of long-run developments in the demand for nickel.¹

From May, 1934, to the end of 1936 the price of nickel was stabilized at £200-£205 per ton, and on 1st January, 1937, it was brought down to £180-£185. This price policy, coupled with trade revival and the demands of rearmament, resulted in a marked increase in the consumption of nickel, and in the profits of the Company. In other respects also the Company is enterprising and far-sighted. It maintains an excellent research organization, with laboratories at Birmingham, Bayonne (New Jersey) and Copper Cliff (Ontario); and the practical results, mainly in the form of new uses for nickel, are made known to industrialists through the Company's development bureaux in the United States, Great Britain, France, Belgium, Italy, and Japan. The Combine has immense financial resources and watches closely the discovery of new nickel deposits in any part of the world, with the object of securing control wherever the developments appear promising.

¹ *Economist*, 11th November, 1933.

INTERNATIONAL NICKEL COMPANY OF CANADA AND SUBSIDIARY COMPANIES



The mining and smelting plants are directly controlled by the parent company, and so are the three Canadian manufacturing companies—Whitehead Metal of Canada, Canadian Nickel, and Canadian Nickel Products. The International Nickel Co. Inc., which is indirectly linked to the parent company through Anglo-Canadian Mining and Refining Co., controls the manufacturing subsidiaries in the United States and three information bureaux in Europe and the Far East. The British subsidiaries and the new Petsamon Nikkeli undertaking in Finland are controlled through the Mond Nickel Co., Ltd.

* Inactive

The conditions which favoured and facilitated the international cartelization of the aluminium industry were the small number of producers in each country and in the world as a whole, and the very large quantity of capital required. In order to produce cheap aluminium it is necessary to acquire bauxite mines, and to put down expensive plants capable of producing enormous quantities of electric power. Therefore, low unit-costs are possible only if production is steady, continuous, and on a very large scale. Another factor is the importance of uniformity of quality in the finished article. Moreover, costs of transport are low relatively to the value of aluminium, and therefore the producers of aluminium can expect little natural regional protection from competition. The principal sources of supplies of bauxite¹ are—

	<i>Approximate Proportion of World Output per cent</i>				
France	36
United States	20
Dutch Guiana	11
British Guiana	10
Italy	10

The manufacture of aluminium is comparatively a new industry. It has no individualistic traditions, and horizontal combination and vertical integration are among its most marked features. Its expansion is closely in step with other "young" industries, such as the electrical industry, which have been born, so to speak, into an age and atmosphere of large-scale production and have never been organized in any other way. Since the number of producers of

¹ Great progress has been made in recent years in the refining of bauxite by the hydro-electric process. The approximate output ratios for the seven chief producing countries are—

	<i>Ratio</i>				
United States	100
Canada	40
Germany	33
France	30
Norway	25
Switzerland	20
United Kingdom	15

aluminium was small the preliminary work of bringing them together was comparatively easy, especially as they were already "grouped." "The five French participants were firmly organized into a shareholding company, L'Aluminium Française. The other leading European manufacturers, the Aluminium Industry (Shareholding Company), of Neuhausen, did business through four factories in Switzerland, Germany, and Austria." The monopolistic Aluminium Company of America controlled a Canadian undertaking—the Northern Canadian Aluminium Company—and had a regional agreement with the Aluminium Industry of Neuhausen until 1912, when the arrangement was dissolved as the result of a prosecution in U.S.A. under the Sherman Act.¹ There were also three undertakings in England and Norway, "all closely connected," and another in Italy. "Owing to this high degree of concentration it was found possible to form an international convention as early as 1901, the bond between the various producers being the exclusive use of the electrolytic patents. The expiry of these in 1905 gave rise, however, to new competition, and the syndicate collapsed in 1908."² During its existence the price of aluminium had risen by about 100 per cent. Another international cartel was formed in 1912. It included all the chief European producers (French, Swiss, and British), and "it is understood to have entered into arrangements with the Canadian company producing aluminium, which is believed to be controlled by the Aluminium Company of America."³ According to the Committee on Trusts the aim of the aluminium cartel was mainly the regulation of prices.

At that time the leading aluminium producers of the world could still be numbered on one hand. According to Kossmann they were—Aluminium Industrie A.-G.; Société Electrometallurgique Française, of Froges; Compagnie des Produits Chimiques d'Alais et de la Carmargue; the British

¹ *Journal of Political Economy*, October, 1920, pages 662-3.

² Fitzgerald, *op. cit.*, quoting *Ironmonger Year Book*, 1917, page 131.

³ *Report of the Committee on Trusts* (1919), page 41.

Aluminium Company, Ltd.; the Aluminium Company of America. Out of a total of twelve producers, these five undertakings turned out 90 per cent of the world output, distributed between them respectively approximately in the following ratios—60, 60, 25, 45, 120.¹ During the War the demand for aluminium increased by leaps and bounds, and belligerent governments became greatly concerned about output. The German government owned one aluminium plant, directly controlled another, and subsidized those over which its control was somewhat less complete. The French increased their aluminium plants, and the Italians set up an entirely new aluminium industry within their own frontiers. After the War it was found that "those responsible for army work had accumulated big stocks of the metal, and some time elapsed before they could regain their equilibrium. Hardly had they done so, when they were faced with the economic crisis of 1921. It is at such times that producers realize most clearly the expediency of coming to an understanding and offering a united front in the face of common difficulties. These various reasons led European producers to get into touch with one another, to exchange views on the future of their undertakings, and to realize the advantages of organization. The first agreement, confined to prices, was negotiated in 1923, being followed, in 1926, by a more comprehensive agreement, . . . this was concluded for an initial period of two years, i.e. until December 31st, 1928, when it was renewed for a further period of three years." For legal reasons peculiar to the United States of America, the Aluminium Company of America, which is the only producer of raw aluminium in the United States and the "largest aluminium concern in the world," has hitherto felt obliged to remain outside the agreement, and "Aluminium Ltd., a company of independent legal status and which controls all the factories of the same group operating outside the United States . . .

¹ W. Kossmann, *Ueber die wirtschaftliche Entwicklung der Aluminiumindustrie.*

felt called upon to adopt the same attitude.”¹ The Canadian producers, however, have joined. This international aluminium cartel thus combines all the important producers of Germany, Switzerland, France, Britain, Italy, Austria, and Canada, as well as certain Norwegian producers; while the possibility of a secret “understanding” with the Americans is by no means out of the question, although the United States Government is still hostile so far as its jurisdiction extends.² The objects of the cartel, as set out in the agreement, are—

(a) The regulation and control of the aluminium sales of each member, more particularly by the exchange of commercial information in their possession.

(b) The promotion, by all means and in conjunction with consumers, of a more widespread use of aluminium.

(c) The reduction of general costs and transport costs to a minimum.

(d) The control of the sales of members on the basis of a quota allocated to each.

(e) The fixing of a standard price, determined by the quality of the metal delivered, according to a scale established by the cartel.³ The cartel commenced by reducing prices by 12 per cent, and the price of aluminium has since been reduced on a number of occasions.⁴ Probably the chief reason for this is the fact that in their constant attempts to extend the use of aluminium, producers encounter the competition of cheap substitutes, such as iron and tin. There is, also, the general fall in the wholesale prices of all such commodities. The existing cartel does not attempt direct price-fixation, but merely exerts an indirect influence on prices by controlling the home and export sales of members by allocating a quota to each.

¹ League of Nations *Review of the Economic Aspects of Several International Industrial Agreements* (1930), page 26.

² See *Economist*, 12th May, 1934, page 1036.

³ League of Nations *Review of the Economic Aspects of Several International Industrial Agreements* (1930), page 26.

⁴ *Ibid.*, page 28; League of Nations *General Report on the Economic Aspects of International Industrial Agreements* (1931), page 22.

Sometimes the existence of one great undertaking carrying on business on an international scale is primarily responsible for the formation of an international combine. If such an undertaking takes the initiative, whether in a peaceful or a hostile manner, smaller producers may think it advantageous to join the combine, or at least dangerous to refuse. Moreover, the existence of a powerful national or international combine may stimulate the formation of other combinations among producers in countries where none already exist, in order that they may be in a position to compete, and, if necessary, to negotiate with the foreign or international combine.

At the close of the nineteenth century the tobacco industry in England was little troubled by foreign competition. But as the twentieth century opened, a giant American undertaking—the Consolidated Tobacco Company—commenced a determined campaign to capture the English market. "For this purpose it bought control of Ogden's, Ltd., a leading English manufacturer, paying therefor over \$5,000,000. The Ogden Company at once offered most liberal inducements to the trade. This entrance of the American Tobacco Company interests into Great Britain alarmed the other tobacco manufacturers there . . ."¹ and all the leading English manufacturers immediately combined to meet the attack by forming a great national combine—the Imperial Tobacco Company. Competition at once became so intense that it was obvious it could not last long. In fact the battle of the giants ended in September, 1902, when the two rival combines agreed that each should be left in possession of its home market, and that their combined export trades should be handled by a special company, to be called the British-American Tobacco Company. Owing to the predominance of the American combine in the export trade, the right to nominate twelve of the

¹ *Report of the United States Commissioner of Corporations on the Tobacco Industry*, Part I. Cf. also Jenks and Clark, *The Trust Problem* (4th Edn., 1922), page 354.

eighteen directors of the British-American Tobacco Company was given to the Americans. The American section of this international combine sought to consolidate its grip upon the trade by acquiring all the best patented machinery, by checking the growth of rivals by underselling them with its "fighting brands," and by constantly buying up competitive undertakings. The British part of the combine seems to have relied most upon increasing its productive efficiency and stimulating the consumption of its various brands, mainly by lavish advertising. For nine years the combine operated vigorously; but ultimately it was broken, not by economic forces, but by the power of the Federal Trade Commission of the United States Government, which decided that the American section of the combine had abused its powers. The agreement of 1902 was annulled, and the Commission decreed that the American combine must break up into fourteen separate undertakings, and that these units must remain separate. This bombshell destroyed American control of the British-American Tobacco Company, but not the company itself (for it is registered in England), nor the interests of Americans in it. Since 1911 the British-American Tobacco Company has continued to flourish and to work in friendly alliance with the Imperial Tobacco Company.¹

The Imperial Tobacco Company, which caters for the home market, now controls over twenty tobacco manufacturing and retailing companies, as well as a buying organization in the United States. Its associate, the British-American Tobacco Company, "has the rest of the world for its oyster" and controls over one hundred companies in Canada, China, India, and South Africa. Moreover, the British-American Tobacco Company is, in its turn, "associated" with various important companies and their subsidiaries, including Imperial Tobacco Company of

¹ The Imperial Tobacco Co. holds interests in subsidiary and associated companies valued at some £11,200,000, the major portion being its holding in British-American Tobacco Co. and its subsidiary, Tobacco Securities Trust Co.

Canada, British Tobacco (Australia), W. D. & H. O. Wills (Australia), and United Tobacco Company (South Africa).

In the case of the tobacco trade the international organization seems to have come out little the worse for the break-up of the American section: but this might not always be so. A blow struck at a great national combine by anti-trust legislation may affect an international combine of which the national combine is a member in such a way as to cause reorganization and readjustments within the international combine, and the raising of controversial questions (e.g. relative quotas) which threaten to split the international combine whenever they arise.

In the incandescent lamp industry throughout the world the number of producers has never been very large, and this has undoubtedly influenced the evolution of the industry's organization; but in this industry more, perhaps, than in any other, "economic combinations have been determined, as regards their terms and their effects, by the progress made in the technical and scientific fields."¹ Another factor has been the rapid growth of productive capacity, giving rise to fears of over-production, intense competition and price-cutting.

In 1903 the various European incandescent lamp manufacturers, led by the Germans, formed an international prices cartel for carbon filament lamps. Eleven lamp manufacturing undertakings in five different countries (Germany, Austria-Hungary, Italy, Holland, and Switzerland) were parties to this agreement, which remained in force until the end of March, 1914. The substitution of the metal filament lamp for the carbon filament lamp, however, created the need for a new settlement. The best results with the metal filament (wire-drawn wolfram) were obtained by the Americans. But this did not leave the Germans stranded, for as a result of the financial relations which had already been established between American and German companies,

¹ League of Nations *Review of the Economic Aspects of Several International Industrial Agreements*, page 65.

technical co-operation became possible when the need arose. In 1904 the American Union Electric Company had combined with the German General Electric Company (the *Allegemeine Elektrizitaets Gesellschaft*), sales areas had been defined, and it was soon decided to exchange patent rights. In the German industry during the next few years the leading lamp manufacturers found themselves much hampered by the monopolies conferred upon particular patentees, and eventually, in 1911, three large makers—Siemens and Halske, the A.E.G., and the German Incandescent Gas-burner Company—formed the *Drahtkonzern*, or Filament Trust, whereby they pooled their patent rights. There was, however, no price agreement, and in all other respects the parties retained their autonomy, even when they exchanged details of manufacturing processes with the American General Electric Company.

The British branches of the members of the *Drahtkonzern* came to an agreement in 1912 with the British lamp manufacturers for the mutual use of patent licences in Britain. Somewhat similar agreements were made in 1912-13 between the German companies and important companies in France, Holland, and Austria-Hungary. Then the War came and shattered in a few hours international industrial agreements representing many years of patient effort.

The situation soon after the end of the War was outlined by a government committee of investigation as follows—

The General Electric Company of America have a majority holding in the British Thomson-Houston Company, Ltd., in England, and have recently joined interests with Phillips's Glowlamp Works, Ltd., a very important lamp manufacturing concern in Holland. Recently Phillips, of Holland, acquired about one-eighth of the Edison-Swan Electric Company, Ltd. (in England) shares, and two Phillips's directors have joined the Edison Board. Such an international "community of interests" might be able to dominate the world's lamp market and fix prices, regulate output, and allocate markets. . . .

One of the leading foreign makers (of glass bulbs) is

Messrs. Libby of U.S.A. and for certain types of lamps it is advantageous to use Libby bulbs. But Messrs. Libby are connected with the General Electric Company of America, and that company is financially connected with the British Thomson-Houston Company. . . .

There is already an arrangement between America and England whereby the respective markets are allocated, and British Associated Manufacturers are prevented from exporting to U.S.A., Mexico, and Japan. Moreover, the British Associated Manufacturers control through the General Electric Company of America the best American glass bulbs, and have prevented non-associated manufacturers from obtaining supplies of that particular bulb.¹

The Committee on Industry and Trade stated that the world demand for electric lamps immediately after the post-war boom could have been supplied, in all probability, by half the existing plants.² In other words, productive capacity had far outstripped effective demand; a fact which caused a number of leading manufacturers, chiefly in Europe, to take steps to "obviate the possibility of unco-ordinated production and unrestricted competition," which, they thought, would be "disastrous to the industry and the quality of its products." In 1921, a group of German and Central European lamp manufacturers, together with a Dutch company and a Swedish company, formed the International Union for Regulating Prices of Incandescent Lamps (Internationale Glühlampen Preisvereinigung), which delimited territories, fixed common prices and common conditions of delivery and payment. In the following year "the friendly agreement concluded . . . between the American General Electric Company and the Osram Company was of particular importance. Besides an arrangement regarding the exchange of patents and of the results of experimental work, this agreement marked out exclusive sales areas for the two contracting parties, and thus set

¹ *Findings and Decisions of a Sub-committee on the Electric Lamp Industry* (Cmd. 622, 1920), pages 13-14.

² *Survey of Metal Industries*, page 322.

territorial limits to the competition between these undertakings by applying for the first time the principle of the protection of the home market."¹ This phase of the international combination movement in the electric lamp industry culminated at the close of 1924 in a general Convention for the Development and Progress of the International Electric Lamp Industry—an agreement made between manufacturers in every country of the world except Canada and the United States. As originally constructed, the convention covered twenty-seven principal companies, including eight lesser combines consisting of thirty-six affiliated companies.

Under the terms of the Convention, each party obtains, during the period of validity of the Convention, the right to utilize the inventions and experiences of the other parties on payment of the usual licence fees. An arbitral tribunal is appointed to decide claims regarding the taking out or infringement of patents. The parties are also bound to allow co-contracting parties to visit their laboratories and workshops at any time. The rationalization of production, stocks and sales is assisted by agreements regarding the standardization of electric lamps and the reduction of the number of varieties. Technical supervision of the firms parties to the Convention is also provided, for the quality of their products is checked. This last-mentioned work is carried on in a special laboratory, to which the parties to the Convention must send samples of their products. Propaganda in favour of the use of electric lamps is carried on on behalf of all the parties through the intermediary of the *Lichtwirtschaft*.

REGULATION OF PRICES

The Convention does not provide for the joint sale of products, nor is price-fixing a condition or an integral part of the Convention. The regulation of prices is left entirely to the members interested in the trade of the various countries. It is facilitated, however, by dividing up the world trade according to countries of origin and common territory.

¹ League of Nations *Review of Several International Industrial Agreements*, page 70.

REGULATION OF SALES

There is no limitation of output, each party being free to produce as it thinks fit. Production is indirectly regulated, however, by the limitation of sales and the allocation of sales areas—i.e. by sharing the world trade. The sales quotas of the various members are determined by the actual sales during a specified basic year, the various types of lamps being brought to a single basis (unit lamp). Members must also share, in the proportion thus fixed, in any increase in world trade. The aggregate quota is divided into national quotas for the various countries of origin (mainly countries having large electric-light industries) and in national quotas for the rest of the world (common territory). The allocation of quotas to the various members is determined by the actual sales during the basic year. Any firm having no sales at all in a country in the course of that year may sell its products there afterwards. As regards countries in the common territory, a firm may, if it does not reach its full quota in any one country, make up the difference from its sales in another country forming part of the common territory. On the other hand, if a firm does not reach its full quota in its country of origin, it cannot seek compensation in the common territory. If a firm exceeds its quota, it must pay, according to a fixed scale, fees for the benefit of the firms whose quota has not been fully realized. The payment of these fees is secured by the sums deposited with the Phoebus Company by each of the firms parties to the Convention.¹

“Parts of the world from which British lamp makers were excluded by existing patent or trade-mark rights were opened up to them, and, in return, certain Continental makers were granted under royalty the right to sell lamps in Great Britain. Arrangements were also made, and are in full operation, for the interchange of patents, research, and factory experience.”² The same agreement also set up international committees to promote the use of electric lighting throughout the world; to control the variety of lamps manufactured and to eliminate wasteful overlapping and unnecessary multiplication of varieties; to study

¹ League of Nations *Review of the Economic Aspects of Several International Industrial Agreements* (1930), pages 73-4.

² Committee on Industry and Trade, *Survey of Metal Industries* (1928), page 322.

manufacturing methods with a view to the improvement of the quality of the product; and to control the combine's testing station at Geneva so as to ensure the maintenance of the highest possible standards. Every member of the Convention is a member of the Phoebus Company, which is the central administrative organization or hub of the whole combine. It is located at Geneva "in order to ensure as far as possible independence of the divergent laws of the various countries."

The fact that the American companies in the electric lamp industry are not directly parties to the international convention does not mean that they have no international links and interests. On the contrary, their influence extends far beyond the frontiers of the United States. For example, the international interests of the American General Electric Company (which has the largest output of electric lamps in the world) are in the hands of the International General Electric Company, which has holdings in, and agreements with, many foreign companies, in Germany, Austria, Holland, Hungary, France, Britain, and Japan. Also it has foreign branches, and part control of certain foreign organizations, which it runs jointly with other companies.

The position of the British Thomson-Houston Company in the British electrical industry is well known and needs little elaboration here. It is associated with the American General Electric Company, and it pursues a policy of co-operation with other important electrical companies at home and abroad, "particularly in the fields of research and engineering."¹ "In France the Thomson-Houston Company is closely connected with numerous other concerns, and it is probably the greatest single concern of its kind in France. It possesses nine factories more or less specialized as to products; it has a special arrangement with Schneider of Le Creusot, and the Jeumont Company for working together for the requirements of railway electrification schemes; in

¹ Chairman's Speech at 37th Annual General Meeting of the British Thomson-Houston Co., Ltd., 13th April, 1932.

1921 it founded, with the International General Electric Company (New York) and the Compagnie Générale d'Électricité, another concern named the Compagnie Générale des Lampes, which dominates the lamp trade, embraces several of the chief lamp concerns in France and Spain, and possesses the manufacturing rights of its three founders in several other countries."¹

The desire to pool the results of research, to perfect production, and to extend consumption, has also led to international combination in the aniline dyestuffs industry. Before 1914 Germany supplied 88 per cent of world demand, but during the War France, Great Britain, the United States, Italy, and Japan developed their dyestuffs industries, which they protected by import prohibitions or high import duties. This was the situation until 1927, when a Franco-German aniline dyes cartel was formed. Its expressed objects were the mutual exchange of ranges of goods; joint exploitation of technical discoveries; improvement of quality; and extension of the market. Many powerful undertakings, however, remained outside the cartel, and prices were still competitive. A group of three Swiss companies joined the cartel in 1929.²

The existence of national combines or organized groups of producers having common interests greatly facilitates the formation of international combines, especially where the number of *individual* units is large. Moreover, a combination of international combines is not entirely unknown. The Cement Cartel, for example, was based upon three main agreements, viz. a reciprocal quotas agreement between the French and Belgian cement manufacturers; an agreement between the Franco-Belgian combine and German, Swiss, and Czech producers; and a Belgian-Dutch agreement.³ Professor Kemper Simpson notes that in 1934 the

¹ *Survey of Metal Industries*, pages 332-3, 359.

² The British Dyestuffs Industry and the International Cartel formed in 1932 are discussed in Chapter V.

³ The present international cement cartel was formed in 1934 between the chief Belgian, Dutch, and German cement manufacturers.

control of the German electrical equipment industry was in the hands of two great vertical combines, controlling about three-quarters of the German output and about four-fifths of German exports. These combines are "closely allied with electrical equipment industries in many countries" and "have had working agreements for years with the American companies, which have of late even put capital into the German industry."¹ Another example comes from the recent history of the diamond industry. In 1933 the diamond producers of South Africa abandoned competition and formed the South African Diamond Producers' Association, which included the Koffyfontein Mines, the Cape Coast Exploration Company and the South African Government. The members of this combine make their sales through a subsidiary, called the Diamond Trading Company, Ltd., according to quotas fixed by the Association. The Diamond Trading Company also sells, under contract, the output of the principal diamond producers outside South Africa. Recently efforts have been made to bring the finishers and merchants into the combine, and in September, 1937, an agreement was reached at Antwerp for the formation of a world Union of the Diamond Industry. The details and policy of this new organization are not yet clear. Again, the launching of the Chadbourne Plan (already described) was greatly facilitated by the existence of organizations of producers in the European beet sugar industry, and in the cane sugar industries of Java and Cuba. Dr. Liefmann points to the increase of large international *concerns*, and thinks that international cartels between them "are particularly likely to occur" in the near future.²

Any act or event—such as infant industry protection or a great war—which stimulates an abnormal expansion of national industries previously insignificant or even non-existent, may result eventually in excessive aggregate

¹ K. Simpson, *Introduction to World Economics* (1934), page 42.

² *Cartels, Concerns, and Trusts* (1932), page 149.

productive capacity. Then there will ensue either intense international competition, unremunerative prices and elimination of marginal producers (unless the latter are saved by State assistance), or the formation of an international combine to regulate output and allocate orders. But before this comes about, international competition may have forced many of the producers in the different countries into national combines. Indeed, in certain circumstances the State may *compel* producers to combine. The Roumanian State has formed a petroleum cartel with the object of securing the sale of Roumanian petrol exclusively in the home market, and keeping the home price from rising above export prices. The State's control is exercised through a sales office, and the participation of all producers, refineries, and consumers is permitted. Where national producers are slow to combine in spite of the pressure of foreign competition, States may take steps to set the combination process going, and by so doing they may pave the way to the formation of an international combine. Government co-operation or initiative is always a highly valuable factor, and sometimes an indispensable one, both in connection with the negotiations between the various national producers, and in carrying international agreements into effect after they are formed. In recent times the German, Spanish, Chilean, and British governments have taken a hand in formulating and implementing international agreements regarding potash, mercury, nitrate, and tin respectively.

The potash industry affords an excellent example of a small number of producers, controlling some 95 per cent of the world's output of a primary raw product, unified by state action and forming an international combine in order to avert the danger of over-production, severe competition, and exceedingly low prices. Before the War the Germans supplied about three-fourths of the potash used in the world, and the French about one-fifth. In 1910 the German government assumed the function of fixing the domestic and export price of potash. Quotas were allocated by a

commission of seven (three of whom were selected by the Chancellor), and all profits were pooled. Parts of quotas, up to 50 per cent, were transferable between members without restriction; but more than 50 per cent of any quota could be transferred only with the government's consent.¹ The transfer of the Alsatian potash mines to France after the War, and the increasing productive efficiency in both the French and German industries, presaged a period of intense competition and low prices unless an international agreement could be arranged. But this did not come until 1926. Meanwhile, the French, with State assistance, were consolidating their much enlarged industry, and the Germans were laying down fresh regulations for what remained of their potash industry after the Treaty of Versailles.

The German law for the consolidation of the potash industry provides, *inter alia*, for careful regulation of the number of new mines opened up, and "for the regulation of the price in the domestic market, and leaves the price in the foreign market to be set as the monopoly deems expedient; but the monopoly must obtain special permission from the Minister of Economy if it desires to grant, in respect of potash to be exported, a price lower than that fixed for sales for consumption in Germany. It thus continues the previous policy of regulating the domestic price while leaving the monopoly free to exact whatever price it can from foreigners."² This regulation of the domestic price arises from the government's desire to assist German agriculture. The difference between the domestic and export prices is now much less than it was at one time.

The international potash convention was set up after Germany had lost some of her pride of position as the result

¹ On the cartel movement in the German potash industry before 1914, see article by H. R. Tosdal in *Quarterly Journal of Economics*, November, 1913, page 140.

² Wallace and Edminster, *International Control of Raw Materials* (1930), page 86. Cf. G. W. Stocking, *The Potash Industry: a Study in State Control* (1931), pages 11-12, and Chapter IV.

of the War. According to M. Herriot, "She found herself threatened by American, Polish, and Spanish competition, and above all by the return to France of the pits and factories of Alsace-Lorraine, the exports from which grew from 6,000 tons in 1913 to 70,000 in 1923, whereas between these two dates the increase in exports from the Reich was only from 70,000 to 120,000 tons. The Kali Syndicate had the advantage of richer sulphate deposits, but was handicapped by high transport costs. There were national cartels on both sides."¹ A provisional agreement relating to sales in America and Sweden was made between the German and French interests in 1924. It was agreed that the price of potash should be maintained at \$27 per ton of 80 per cent chlorine of potash, with prices of other compounds in proportion: the German industry to supply 67½ per cent and the Alsatian industry 32½ per cent of sales to the United States. The German export quota of sulphates of potash was fixed at 35,000 tons, and the French quota at 5,000 tons per annum. In 1926 a Franco-German cartel agreement was made for a period of ten years. The main provisions of this agreement may be summarized as follows—

1. Home markets, together with colonies, protectorates, and mandated territories, strictly reserved.

2. French producers to make every effort to induce new producers within French jurisdiction to join the cartel.²

3. Annual sales allowed to non-reserved regions up to a maximum of 840,000 tons; 70 per cent to be supplied by the Germans, and 30 per cent by the French. Any excess over 840,000 tons to be divided equally.

4. Orders in hand and shipments made to be mutually notified every ten days.

5. Transfer of orders allowed in order to adjust sales to quotas.

¹ E. Herriot, *United States of Europe* (1930), page 139. The French *Société Commerciale des Potasses d'Alsace* includes the French State mines and the *Mines de Kali Ste. Thérèse*.

² By German law every potash works *must* be in the German Potash Syndicate.

6. If exact adjustment not possible, compensation to be paid.

7. Joint Selling Agencies to be formed in foreign markets, e.g. in Holland, England, Belgium, Switzerland, Italy, Spain, and the United States.

8. Prices to be fixed for each market on the recommendations of local managers, having regard to (a) cost of production, and (b) encouragement of future use of potash; for the cartel recognized that potash will be used only if the ratio between the cost of the fertilizer and the value of extra produce obtained thereby is satisfactory to farmers as a whole.

9. A supervisory committee, consisting of equal numbers of French and German representatives, was set up to verify returns, arrange arbitrations, and generally to promote the fair and smooth running of the cartel.¹

The chief claims made on behalf of the cartel were that it would stabilize prices at a level reasonable to users and remunerative to the producers; and that more progress in research was likely to be made.

In Germany, at the end of 1933, a new Potash Law introduced "the leader principle" by setting up a Potash Examination Board in place of the *Reichskalirrat*, or Potash Council,² and by substituting government decrees for the decisions of the Council.

In France, apart from the effects of the intensification of outside competition in the export markets of the cartel and of a contracting home market, in which sales fell by 26 per cent between 1929 and 1932, the industry has had to face the prospect of increased production owing to the development work carried out by the Mines de Blodelsheim, and sales of Spanish potash on the French market. The French production is divided between the State Mines (Mines Domaniales de Potasse d'Alsace), which in 1933 produced 247,640

¹ See also Appendix III, page 264, for a translation of the text of this Agreement.

² This Council consisted of thirty members, representing producers, consumers, wage-earners and salaried employees, and State authorities.

metric tons (K_2O content), or 76 per cent of the total; and the Mines de Kali-Sainte-Thérèse, which produced 78,000 tons. These two concerns have a joint marketing organization. The first move made to surmount these difficulties was the passage of a Bill in July, 1933, despite considerable opposition from the chemical industry. This Bill provided, among other things, for the nationalization of all potash mines, and accorded monopoly rights for all future potash discoveries in France or the French colonies to the Mines Domaniales. At the same time, negotiations were entered into between the Monopoly and the Blodelsheim company with a view to the inclusion of the latter.¹

Outside Germany and France, the principal actual and potential sources of potash are in Poland, Spain, Palestine, the United States, and Russia; and not long after the formation of the Franco-German cartel it became clear that developments in these "outside" regions might undermine the cartel's world monopoly. In March, 1932, the Polish producers joined the cartel, but the Spanish companies did not, and a severe bout of competitive price cutting was the result.

The Spanish potash industry has developed very rapidly. Production was begun in 1925 by the Minas de Potasa de Suria, a company (formed in 1920) in which the Belgian Solvay concern and the Kalisyndikat are interested. This company remained the only producer until 1930, when it was joined by the Union Española de Explosivos, in which Imperial Chemical Industries, Ltd., have an interest. The third producer, Potasas Ibericas, started in 1932. It is controlled by the French "Péchiney" concern (Cie. d'Alais, Froges et Camargue), but the Mines de Kali-Sainte-Thérèse also hold an important interest. These three companies are unlikely to remain the only producers. Already two other concession companies, La Fodina and La Minera, in which German capital is embarked, are investigating areas north of Sallent. The Spanish Government exercised

¹ *Economist*, 22nd September, 1934. Cf. also Department of Overseas Trade, Report by Sir R. Cahill on *Economic Conditions in France* (1934), pages 665-7.

fairly close control over the potash industry through the Oficina Reguladora de la Producción Fabricación y Venta de Sales Potásicas, and prescribed each year a production and price programme, including maximum and minimum production, and maximum domestic and minimum export prices. The potash consumption in Spain is relatively small—only about 15 per cent of total output—so that all the companies have to rely chiefly on exports. At present it is difficult to form an opinion regarding the ultimate level of Spanish production and exports. Production costs are low largely because the deposits are near the sea and the shaft depths are often less than half those in France and Germany.

Some idea of the severity of the competition, while it lasted, can be obtained from the average export prices, which fell from 154 pesetas per ton in 1932 to 100 pesetas in 1933, and 72 pesetas in the early part of 1934. According to the *Manchester Guardian Commercial* (21st June, 1935), the settlement prices of the cartel decreased by 40 per cent between 1930 and 1934, while the German and French producers' share of world exports sank from 31 per cent in 1931 to 21 per cent in the first four months of 1935. Here, then, we had the curious spectacle of competition between the cartelized French and German companies under close governmental control, on the one hand, and on the other, the Spanish companies *in which they hold interests*, working under the control of a different government. This situation came to an end in April, 1934, when the Spanish producers were brought into the Potash Cartel. In the following year an "understanding" was reached with the American producers, ostensibly for propaganda and research, but it is an open secret that it has a bearing upon sales also.¹

Since the end of the Great War, potash production in the United States (New Mexico, Utah, and Texas) has increased

¹ Royal Inst. of International Affairs, *Raw Materials and Colonies*. (1936), page 66.

considerably. During the past ten years American production has increased fivefold, so that recently it has been possible for the Americans to supply about one-half of their requirements from home deposits. In 1934 the United States Potash Company, Inc., the American Potash and Chemical Corporation, and the Potash Company of America enlarged their mines and refineries so much that once the new plants are in full production the United States will probably be independent of imported supplies.

Thus, only the Russians and a company known as Palestine Potash, Ltd., now remain outside the cartel. The untouched potash resources of Russia are estimated at five times the total resources of the rest of the world; and by all accounts the Russians are now pressing on with the development of some of these, primarily in order to make potash fertilizers available for Russian agriculture. But although Russia's output of commodities like potash and aluminium is not exported to any appreciable extent, her imports of those materials will decrease, and so indirectly Russian production will influence world markets.¹

Palestine Potash, Ltd., is successfully extracting chlorides, including potash, and bromide from the brine of the Dead Sea. Supplies of brine are almost unlimited, the processes are comparatively simple, costs of production are very low, and transport costs have been much reduced since 1932. So far, the company has had no difficulty in disposing of its output at a profit in spite of a fierce bout of competition with the Cartel. This, however, has now been ended by international agreement.

Thus we see that during the past few years supplies of potash have been increasing, and the trend of prices has been downwards. As to the future, much depends upon the policies adopted by the Potash Cartel, the German, French and Spanish Governments, and the non-cartelized producers. If the latter remain outside the cartel, any attempts

¹ Cf. U.S.S.R. Trade Delegation *Monthly Review*, July, 1936, pages 380-1.

to raise prices by drastic restriction of output and exports are sure to fail. If, on the other hand, they join the cartel, and the latter then decides to restrict output and exports in order to raise prices, consumers may find themselves in a very weak position.

The European Mercury Consortium arose out of the co-existence of four favourable conditions, viz. (a) State interest and assistance, (b) the smallness of the number of producing units, (c) the previous wide and frequent fluctuations of mercury prices, and (d) the uniform quality of the product. The production of mercury has become concentrated more and more in the hands of the Spanish and Italian producers, who now produce over 80 per cent of the world's output¹ as against approximately 55½ per cent in 1913. In this concentration the transfer of the Idria mines from Austria to Italy, as a result of the War, has been an important factor. The Idria mines are state-owned, and so are the Spanish Almaden mines; therefore both the Italian and Spanish governments, as well as the proprietors of the small number of privately-owned mines, were keenly interested in guarding against any possible outburst of fierce competition and price cutting between the Spanish and Italian mercury industries. On 1st October, 1928, an international cartel, called the European Mercury Consortium, was arranged, with the objects of ruling out the danger of over-production and competition between the Italians and the Spaniards, and fixing and stabilizing prices. The duration of the cartel was to be ten years, unless it was dissolved under the terms of the agreement at the end of six years. The working of the arrangement was placed under the control of a board of directors, Spanish and Italian interests being represented by equal numbers of directors. The cartel subsequently reached an "understanding" with the Mexican producers, and this created something like a world monopoly in mercury.

¹ The approximate output ratios are: Spain 27, Italy 22, U.S.A. 7, others 3.

For nearly two years (1929-31) the Consortium contrived to keep the price of mercury at a high level, in spite of a deepening trade depression of unprecedented scope and severity. But as a result of this policy its proportion of world output fell from 88 per cent in 1927 to 59 per cent in 1931, while its unsold stocks increased. The fringe of independent mines expanded their output and consumers turned to substitutes wherever possible. Ultimately prices collapsed from £22 7s. 6d. per "flask" or "pot" of 76 lb. in May, 1931, to £9 10s. in August, 1932. The average price for 1934 was £10 15s., and owing to the expansion of demand the trend is still upwards, despite the dissolution of the mercury cartel "for political reasons," in October, 1936. Expanding demand for mercury in recent years has been due principally to low prices and to the increasing manufacture of explosives and electrical equipment. The United States mercury producers, who are the only ones of any importance outside the cartel, are protected by an import duty of \$19 per flask, and they concentrate entirely upon supplying the United States market. This means that future output and prices of mercury in the rest of the world will depend almost entirely upon what the governments of Italy and Spain decide to do. Owing to the enmity arising out of Italy's military intervention in the so-called civil war in Spain, if the Spanish Democrats win their fight against General Franco and international Fascism, it is unlikely that the Italo-Spanish mercury cartel will be revived in the near future. But, if Spain falls into Fascist hands, the cartel will doubtless be cemented more firmly than ever.

The distinctive features of the Chilean nitrate industry are (1) Chile's almost complete world monopoly of natural sodium nitrate; (2) its predominant position as the largest industry of that country; and (3) the Chilean government's close attention in the past to the internal organization of the industry and the pursuit of a price-fixing policy, because of its desire to accelerate the economic development of

Chile, and to obtain a very substantial revenue by means of taxes (e.g. export duties) levied upon the industry.

After the War the competition of manufactured nitrogen greatly increased, and in order to meet it the Chilean government not only gave full approval to the Chilean Nitrate Producers' Association, but it pressed all important producers into the association, and subsidized the nitrate industry, indirectly through the reduction of railway charges on nitrate, petrol, and coal, and the removal of the import duty on bags intended to be used for the export of nitrate; and directly by giving a bonus equal to such price-reductions as the German nitrogen manufacturers' syndicate might make. Four of the eighteen directors of the Association were appointed by the President of Chile. The Chilean government also took the initiative in connection with the establishment of a nitrate bank and a joint selling agency. But against all this we must set the heavy export duty. As this was a specific tax, the real burden of it increased when nitrate prices fell, and decreased when they rose. Therefore, it was in the interests of the Chilean producers to keep prices as high as possible; but the State exercised a moderating influence upon any upward tendency because it had always an eye upon the revenue derived from exports.

The Chilean position, formerly so strong, is now completely undermined by the expanding output of manufactured nitrogen products, either "fixed" from the air, or obtained from the waste or by-products of other industrial processes.¹ In the last twenty years the proportion of natural nitrate to manufactured nitrate consumed in the world has fallen heavily. In the post-war period, between the years 1924-25 and 1931-32, world consumption

¹ By-product nitrogen is obtained mainly from the coke ovens associated with steel plants. The world output of by-product nitrogen follows the fluctuations of the steel industry fairly closely. In the U.S.A. and Germany nearly all the by-product ammonium sulphate is supplied in this way, but in Great Britain about two-fifths is obtained from coke-ovens, about two-fifths from gas works, and about one-fifth from shale distillation, producer-gas plants, iron works, etc.

of manufactured nitrogen rose from 786,800 metric tons to 1,421,600 metric tons, an increase of 81 per cent: but world consumption of Chile nitrate declined from 363,000 metric tons to 138,200 metric tons, a fall of 62 per cent. The relative quantities and proportions in the period 1929-37 were—

Year	Manufactured Nitrogen		Chile Nitrate	
	Metric tons (thousands)	Per cent	Metric tons (thousands)	Per cent
1929-30	1,587	77	364	23
1930-31	1,377	85	244	15
1931-32	1,417	91	138	9
1932-33	1,620	93	127	7
1933-34	1,714	91·3	164	8·7
1934-35	1,877	90·4	195	10·3
1935-36	2,201	91	216	9
1936-37	2,433	91	242	9

Severe competition from the producers of manufactured nitrogen, coupled with general over-production and accumulation of stocks, led to the suspension of the Chilean price agreement on 16th June, 1927. A little less than three years later the Nitrate Company of Chile ("Cosach"), a new Chilean nitrate combine, sponsored and controlled by the American Guggenheim interests, was formed to rationalize the Chilean industry in face of the changed world situation.¹ Cosach was capitalized at £75,000,000 and the Chilean government, which assisted in the formation of the combine and held half of the original capital, was to receive a half-share in its profits in return for abolition of the export

¹ The proposal for the formation of "Cosana," as the combine was originally to be called, was announced in April, 1930. The word "Cosana" was an abbreviation of the proposed name "Compañía Salitrera Nacional," but was later abandoned in favour of the name "Compañía de Salitra de Chile" (i.e. Nitrate Company of Chile). It is said that the abandonment of the name "Cosana" was partly due to the joke circulated by the wits of Santiago that "Cosana" really meant "Compañía Salitrera Nord-Americana"—a sly "dig" at the predominant Guggenheim interests in the new combine.

duties on nitrate.¹ But since the Chilean producers' proportion of world output was shrinking so rapidly, no purely national combine could hope to achieve satisfactory results. Both the Chilean and the European producers were energetically improving their production technique, and further over-production and price reductions seemed imminent. Discussion of the possibility of an agreement with the German and British manufacturers of nitrogenous products was revived, and in June, 1929, the Chilean interests came to "an agreement on close co-operation" with Imperial Chemical Industries, the I.G. Farbenindustrie A.-G., and the Norwegian producers.

This agreement covered between 70 and 80 per cent of the world output of nitrogen, and provided for orderly marketing, cessation of competitive propaganda, joint advertising, and joint action as to prices. In view of "the strained condition of agriculture" a reduction of prices was made. Thus the spring prices charged to British farmers were—

	1928-29 per ton			1929-30 per ton		
	£	s.	d.	£	s.	d.
Sulphate of Ammonia (20.6% N. Min.) .	10	13	—	10	2	—
Nitrate of Soda (15½% Nitrogen) . .	10	12	—	10	2	—

But the bulk of the remaining European synthetic and by-product nitrogen producers, especially those in Belgium, Holland, Czechoslovakia, and Poland, were not in the combine, and their unrestrained competition appears to have obstructed the working of the international agreement. Therefore a more comprehensive agreement was felt to be necessary; and in June, 1930, an international conference was held at Ostend. The outcome was the formation of a European Nitrogen Cartel (Convention de l'Industrie

¹ Cf. *Financial Times*, 30th March, 1931, and *Manchester Guardian Commercial*, 17th September, 1931, page 242.

de l'Azote, or "C.I.A."), including the principal French, German, British, Norwegian, Belgian, Dutch, Italian, Polish, and Czech producers. The chief features of this cartel were (a) the creation of a Common Fund of about £3,000,000 (£2,250,000 contributed by the European Synthetic and By-Product Producers, and £750,000 by the Chileans) to be used to pay compensation to any *synthetic* producer who restricted his output to less than 70 per cent of productive capacity, in proportion to the total restriction of all members below 70 per cent; (b) the maintenance of prices on agreed levels with the Chileans.

The cartel held together only one year (1930-31), for its results did not give general satisfaction. The Chileans in particular were disgruntled, mainly because they found that, despite their adhesion to the cartel (at a cost of £750,000 in hard cash), their sales at the agreed prices were very disappointing indeed, and their share of world trade continued to decrease.¹ In short, the Chileans thought that the cartel had by no means given them value for their money. The Annual Report of the British Sulphate of Ammonia Federation for 1930-31 states that during that year the economic position in agriculture continued to deteriorate, and the reduced purchasing power of farmers was reflected in the decline in fertilizer consumption, while the general trade depression affected almost every form of nitrogen, whether for fertilizer or industrial use, in every continent.

But whereas the world consumption of Chile nitrate has declined by 33 per cent, the demand for by-product and synthetic nitrogen has fallen off by only 13½ per cent. . . . The Convention de l'Industrie de l'Azote (C.I.A.), the European nitrogen cartel . . . had a beneficial effect in bringing world production in 1930-31 more nearly into line with consumption, instead of being enormously in excess as in the two previous fertilizer years. A further large increase in

¹ The last straw was the imposition of an import duty on Chilean nitrate entering Germany, a market in which the Chileans had hoped to increase their somewhat small sales with the help of an import quota.

stocks was thus avoided ; but even further action was necessary if the surplus stocks which had been built up were to be reduced. Strenuous efforts were made throughout the year under review to find a permanent basis for co-operation among the nitrogen producers of the world. But during the final negotiations which continued throughout June and July, 1931 . . . it unfortunately proved impossible to reconcile the claims to shares in the trade put forward by various groups, notwithstanding the heavy sacrifices which the British and German synthetic groups have declared their readiness to make.

Since July (1931), therefore, the nitrogen market has been the playground of unrestricted competition. Most European countries which are both producers and consumers have adopted protection in one form or another and maintained a level of prices slightly lower than that of last season.

In the free markets a fall in price of the order of 50 per cent has taken place.

In normal circumstances, such a fall would have greatly stimulated sales, but in the present world-wide crisis no very marked effect can be hoped for.

From the Federation's Annual Report for 1931-2 we learn that during the early summer of 1932 negotiations for a new cartel between the most important nitrogen producers in Europe were successfully completed, and co-operation with the Chile Nitrate industry was also arranged.

As a result, the general price level for the coming year (1932-33) has been slightly raised ; but until arrangements of a more permanent nature have been arrived at with a view to automatic regulation of production to consumption on a world basis, the nitrogen market will remain liable to the risk of violent price fluctuations.

The difficulties confronting the industry may be gauged by the fact that despite total nitrogen producing capacity in the world to-day being about 140 per cent greater than present demand and 100 per cent in excess of the record consumption of 1929-30, synthetic nitrogen plants are still being planned and constructed in a number of countries.

In such a situation the parlous position of the Chilean Nitrate combine can easily be imagined. Critics point out

that the Chilean industry was inefficient before the formation of Cosach, for its vitality had been continually sapped by the heavy impositions of successive Chilean governments, who all persisted in regarding the industry as a convenient and inexhaustible "milch cow." Crushed between the fall of nitrate consumption and prices, and a mass of Chilean government and private debt, Cosach failed miserably, leaving many foreign investors and some foreign banks¹ to mourn their losses. In the latter part of 1932 desperate efforts were made—mainly at the instigation of the Chilean government, which found itself faced with a huge deficit in the public accounts—to reconstruct the organization by writing off capital and making drastic economies.² The legal liquidation of Cosach was ordered by the Chilean Government on 2nd January, 1933.³

In the middle of 1933, conferences were held in Ostend and Paris with the object of keeping the international nitrogen cartel together for at least another year, but the Chileans and the Europeans could not come to terms. The essential weakness of the Chileans' bargaining position lies not only in the successful competition of the synthetic product, but in the fact that some 70 per cent of the Chilean output must be sold in the home markets of the producers of synthetic nitrate, and this means that in the event of an open and ruthless trade "war," the latter might easily prevail upon their governments to exclude Chilean nitrate, while the Chileans would be powerless to retaliate. Following the failure of the Ostend and Paris negotiations, the Chileans made an agreement with the Belgian producers of synthetic nitrate, for reductions of prices in the Belgian market and the maintenance of the price difference between Chilean and Belgian nitrates, so that the latter would still be Frs. 12.50 per 100 kgms. cheaper than the former.⁴

¹ *Economist*, Vol. CXIV, 1932, pages 86, 516, 794, 1202-3.

² *Manchester Guardian Commercial*, 19th November, 1932; *Economist*, 17th December, 1932, page 1133.

³ *Economist*, 7th January, 1933, pages 36-7.

⁴ *Manchester Guardian Commercial*, 26th August, 1933.

The European Nitrogen Cartel was continued during 1933-34, and in July, 1934, a so-called "World Nitrate Agreement" was made between the European and Chilean producers, under which the latter obtained special import quotas in the home markets of the European synthetic producers, and in the remaining world markets a quota equal to their actual exports in 1933. In return the Chileans promised not to undercut in the home markets of the European producers. During the period 1933-35 the consumption of nitrogenous fertilizers showed a steady upward tendency, although it did not reach the pre-slump level. But in spite of this increase of consumption, the whole industry was producing at less than 40 per cent of full capacity. The estimated production capacity of the synthetic nitrogen plants alone is over 3,300,000 metric tons per annum; but in 1933-34 these plants operated at only 41 per cent of full capacity. The tendency of such an excess of capacity to depress prices is, of course, very great; it has, however, been somewhat mitigated by agreements between the members of the European Nitrogen Cartel. On the other hand, the absence, from time to time, of a definite agreement with the Chileans has resulted in bouts of price cutting in particular markets. "As an agreement has now (January, 1935) been concluded both with Chilean interests and with Japanese ammonium sulphate producers, the profit-earning power of nitrogen producers should improve, provided they do not stifle the improvement in demand by an unwise increase in prices."¹ This agreement expired on 30th June, 1935, but was renewed for a further period of three years in substantially the same form, except that the European producers, i.e. those of Belgium, Germany, Italy, Great Britain, Holland, Norway, Poland, Czechoslovakia, and Switzerland, agreed to close down factories in Holland and Belgium, after compensating the owners, and to permit a moderate increase in the Chilean export quota. It was officially announced that prices would

¹ *Economist*, 5th January, 1935.

be regulated "with due regard to the legitimate interests of agriculture"; but obviously everything turns upon how the cartel translates this principle into practice. The spring price of nitrate of soda in the British market was £7 12s. 6d. per ton in the period 1934-37, a level to which it had fallen steadily from the 1926-27 price of £13 10s.

The international regulation of the production of steel in Germany, France, Belgium, Luxemburg, Austria, Hungary, and Czechoslovakia, after the War, was brought about by means of a convention between the governments of Germany, France, and Luxemburg, coupled with an agreement between steel producers in Germany, France, Belgium, and Luxemburg, joined later by those of Austria, Hungary, and Czechoslovakia. These agreements, and the difficulties due to the new frontiers and swollen productive capacities out of which they arose, are well described in the *Survey of Metal Industries* produced by the (Balfour) Committee on Industry and Trade in 1928.

The changes resulting from the war, . . . briefly stated, . . . consisted in the transfer of parts of the German iron and steel industry to France and to Poland respectively, and in the movement of Luxemburg from the German to the Belgian Customs Union. At the same time French productive capacity was further increased as the result of the erection of new establishments during the war and the reconstruction of the devastated industrial districts in the north and east of the country. Belgian productive capacity was also considerably increased as the result of rebuilding and reorganization; and some increase also took place in Luxemburg. In Germany steps were taken to make good the losses resulting from the territorial transfers, and these went far towards bringing Germany's productive capacity within sight of pre-war levels. . . .

The removal of important sections of the industry from one national area to another, and from one customs area to another, separated the sections in some degree not only from their pre-war sources of supply of raw materials, but also from the pre-war outlets for the disposal of their products. Political separation may or may not imply economic separation, and the political changes consequently led to

bargaining and manoeuvring between some of the parties concerned to settle the conditions under which trade was in future to be carried on. . . .

A convention was signed on 30th September, 1926, between the Governments of Germany, France, and Luxemburg regarding the importation into Germany of iron and steel from Lorraine, the Saar district (which was included in the French Customs area as from 10th July, 1925) and Luxemburg. Germany undertook to allow iron and steel products to be imported from Lorraine and Luxemburg equivalent to $6\frac{1}{2}$ per cent of the German home consumption, and of this $3\frac{3}{4}$ per cent was to come from Lorraine and $2\frac{3}{4}$ per cent from Luxemburg. The goods were to be imported at the price current in Germany, and the sellers were to pay the full duty. The goods were to be imported by the German Iron and Steel Association, and to be distributed through the various selling syndicates. Regarding the production of the Saar, Germany undertook to admit output in excess of 500,000 metric tons ¹ per annum, to an amount of 1,300,000 metric tons per annum, free of duty. She was the more ready to agree to this since the iron and steel industry of the Saar was German controlled and was included within the scope of the German Iron and Steel Association.

The common interests of the European iron and steel industry were also recognized in the European Steel Agreement, which, after long negotiations, was signed on the same day as the convention between Germany, France and Luxemburg. . . . The two together formed a comprehensive arrangement, of which each was an integral part.

The principle underlying the Steel Agreement was the adjustment of supply to demand by means of a system of quotas for the national groups. . . .

Since the formation of this cartel, Austria, Hungary and Czechoslovakia have been admitted. . . . The question of British participation in the European Steel Agreement has attracted considerable attention, but no arrangements for participation have been made. ²

In connection with this major international cartel, certain subsidiary agreements relating to iron and steel products have been concluded. "In November, 1926,"

¹ A metric ton = 2,204 lb. An English ton = 2,240 lb.

² *Survey of Metal Industries* (1928), pages 79-82: cf. *Manchester Guardian Commercial*, 20th February, 1930.

says Dr. Liefmann, "the international pig-iron agreement between Germany, France, and Luxemburg was supplemented by a quota agreement for rolled products, providing for their importation into Germany. About $6\frac{1}{2}$ per cent of the German home supply is bought from those countries by the German iron associations at German internal prices and passed on to the German consumer, 3.75 per cent being allotted to France, and 2.75 per cent to Luxemburg. The quotas are then further subdivided for the different rolled products, semi-manufactures, bar-iron, wire, tinplates, and so on. If Germany delivers rolled products to France, these are then deducted from the French quota. Special arrangements are made for the Saar territory." Among other agreements is one relating to rolled wire, in which the "participation quotas include the home markets also (Germany 57 per cent, France 23 per cent, Belgium 14 per cent, Luxemburg 6 per cent), but the home markets and certain other markets are expressly reserved to the various countries. Minimum prices and fines for exceeding the quotas are also provided. The accounting bureau is at Liège."¹

Early in May, 1933, a new international steel cartel was formed for a term of five years from 1st June, 1933, between the producers of Belgium, France, Germany, Luxemburg, and the Saar. Production is controlled only so far as exports are concerned; and if the annual exports of steel increase, a sliding scale comes into operation so as to vary each group's quota. Thus, in any increase of steel exports, the Germans, whose output was only 36 per cent of full capacity, will be entitled to a larger share than the Belgians, who were working at 70 per cent of their capacity. Six international sales offices were set up to deal with various branches of the trade, e.g. a sales office for steel bars in Luxemburg; for girders in Paris; for half-finished products in Liège, and so forth.²

¹ Liefmann, *Cartels, Concerns, and Trusts* (1932), page 158.

² *Manchester Guardian Commercial*, 6th and 13th May, 1933.

In the middle of 1935, the British steel producers joined the International Steel Cartel on very advantageous terms. And at the end of 1937 negotiations designed to secure the adhesion of the United States steel manufacturers were in progress.

Among all the international cartels formed to control the production of raw materials the existing International Tin Cartel has so far been the most successful from the producers' point of view, for by dint of drastic output restriction it has enabled redundant stocks of tin to be greatly reduced, while, at the same time, prices have been raised by more than 130 per cent. The fall of tin prices preceded the great depression by about three years; and the sharp downward trend, which began in 1927, continued until the middle of 1931. At the end of 1926 tin ingots had reached a price of over £300 a ton. For the year 1929 the average was only £204 per ton (which is about equal to the 1913 average), and by the spring of 1930 the price was nearly down to £150 and was still falling. By this time consternation had spread among the tin producers, and under the auspices of the Tin Producers' Association, Dutch, British, and Bolivian producers tried to bring about, by various methods of restriction, a reduction in world stocks of tin and in the volume of production. But, notwithstanding their efforts, visible supplies continued to rise, and the price fell in the British market from £185 per ton at the beginning of 1930 to £106 per ton at the end of that year. A leading authority in the tin mining world (Mr. C. V. Stephens) admitted that the results achieved had been disappointing, but argued that, in face of the steady decline of consumption, the price of tin would have fallen farther and faster had no attempts at restriction of output been made. He pointed out that—

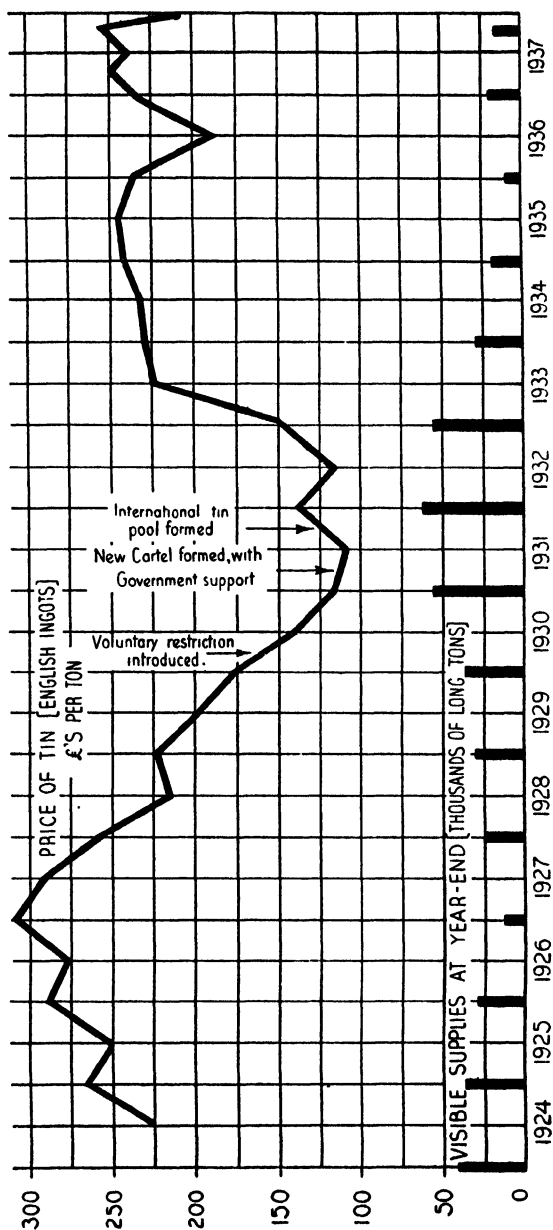
Although the various restriction schemes have been widely supported they have not actually received from producers in general that measure of true curtailment which is essential for the successful operation of a scheme of a

voluntary nature. Some producers have not practised restriction, they have only played at it. Others again have restricted in varying and modest degrees only. . . . One can only give a very approximate figure, but I do not consider that more than 60 per cent of the world's production has subjected itself to what might be called genuine restriction of output. The past twelve months (1930) can be summed up as a period of trial and experiment in the control of production by voluntary action. It has to be admitted that the success hoped for has not been realized. The experience gained has brought home the apparent hopelessness of any successful regulation of the tin industry, which operates under so many racial and diversified factors, by co-operation of a voluntary nature. Discussions have been recently taking place in official circles in the chief tin-producing countries on the advisability of introducing legislation for the regulation of output, and we await further news thereon.¹

During 1931, with the aid of the governments of Malaya, the Dutch East Indies, Nigeria, and Bolivia, partial voluntary restriction was superseded by a more comprehensive compulsory restriction scheme. "It may be accepted as an axiom in these days of debased and adjusted currencies," said Mr. C. V. Stephens in December, 1931, "that no country is going to let go without supreme and persistent efforts any industry which is vital for revenue purposes." He then proceeded to state his opinion that—

If Government regulation were abandoned and the tin industry left to its fate we should unquestionably find ourselves faced with almost endless and ruthless competition. . . . In present circumstances if control were withdrawn the price of tin would within a short period be down to £70 per ton. Even at that figure, on the basis of current trade requirements, there would still be over-production, and I believe that tin would in due course be selling well below £70 per ton, and that we should before long find ourselves in the same predicament as the rubber industry, the victims of senseless competition, with suffering for all and benefit for none. We have been saved from this fate by the operation of the international regulation plan, and we must hope that the efforts being made by the participating

¹ *The Mining World*, 20th December, 1930.



governments, through the International Tin Committee, to restore the industry to a stable condition will be crowned with success.¹

This new restriction scheme brought between 80 and 90 per cent of the world output of raw tin under unified and centralized control, and by the middle of 1933 the price had been raised to the neighbourhood of £230-£240 per ton, at which level it was stabilized for over 2½ years.

In October, 1933, a new agreement, to run for three years from 1st January, 1934, was made between the governments of Bolivia, the Malay States, Nigeria, and the Dutch East Indies, with Siam as a "participating government." In the following year French Indo-China, the Belgian Congo and Ruanda-Urundi, Portugal, and Cornwall agreed to come into the scheme.

From the tin producers' point of view it can very well be maintained that the scheme has so far enabled them to avert ruthless competition and the senseless increase of unwanted supplies. Moreover, if the governments have helped the tin producers, the tin restriction scheme has helped the governments; for "it has saved their revenue from the drastic fall which would otherwise have resulted from the low royalties they would have received on a price of probably not better than £60 per ton. In addition, the prodigal exploitation of a valuable asset at absurd prices has been avoided."²

But after restriction of output and the successful raising of prices comes the problem of stabilization with its trio of questions: how, when, and at what price-level to stabilize, so as not to discourage consumption and stimulate the search for substitutes. The International Tin Committee seems to have solved the first problem with tolerable success, but not the second. After a long period of drastic curtailment, the export quotas were raised in June, 1935, by 5 per cent, thus bringing them up to 50 per cent of

¹ *Ibid.*, 19th December, 1931.

² *The Mining World*, 24th December, 1932.

standard tonnages: and from 1st July, 1935, the International Tin Committee, yielding to strong external pressure, allowed a further increase of 15 per cent. Early in October, 1935, this increase was raised by a further 5 per cent, with retrospective effect from 1st July. Buying and consumption were evidently on the up grade, for in spite of the increase in the quota, the price of "spot" tin showed a net rise, within a few days, of £24 per ton, touching at one time £248 per ton—the highest level reached for seven years. The prospect of an abnormal demand arising out of the Italo-Abyssinian War and its repercussions was, of course, an important cause of this rise, and the outcome was a further increase of the quota later in the same month (October), bringing it to 80 per cent of standard tonnages.

But it may well be argued that notwithstanding these somewhat tardy quota increases, the great rise of over 130 per cent in the price of tin, engineered and maintained by the Tin Cartel, was out of all proportion to the course of prices not only of raw materials in general, but of other non-ferrous metals in particular; and frequent complaints and outspoken criticisms have been heard from British users of tin and from journals such as the *Economist* and the *Manchester Guardian Commercial*. The critics contended, *inter alia*, that the price of tin had been stabilized at a level (a) calculated to preserve the high-cost, or least efficient, producers,¹ and (b) likely to discourage expansion of the uses of tin and to encourage the use of substitutes, whereas the exact opposite should have been the aim. "It is significant," wrote the *Economist* (23rd March, 1935), "that a decline of nearly 8 per cent in world tin consumption between 1933 and 1934 was accompanied by a substantial increase in the estimated consumption of

¹ Thus the *Economist* (28th April, 1934) stated that "the crux of the situation is the (Tin) Committee's conception of a reasonable price. In our view it is certainly below £200 per ton. That sufficient tin can be produced at a profit at a level far below £200 per ton has been shown time and again by the working results of producers." And cf. *Manchester Guardian Commercial*, 5th May, 1934, and 22nd February, 1935.

copper, lead, nickel and spelter." This opinion that the cartelized tin producers, aided by their governments, have abused their monopolistic power by "starving the market" is shared by the users of tin in all the principal industrial countries. It is true that in face of expanding demand the quotas were raised by the International Tin Committee to 100 per cent of standard tonnages for the first quarter of 1937, and 110 per cent for the remainder of the year; but the fact remains that during the greater part of 1937 the price of tin (both "cash" and "three months") averaged over £250 per ton. Nor does the Committee look favourably upon the prospect of lower prices in the near future, for the quota for the first quarter of 1938 has been fixed at only 70 per cent of standard tonnages. All-in costs of production in Malaya, a low-cost region, average between £100 and £110 per ton; but since high-cost countries, where even the more efficient companies cannot produce at costs much below £200 per ton, are also included in the cartel, the International Tin Committee feels bound to try to keep the price well above £200, in spite of consumers' protests and the risk of driving them to search for substitutes.

From tin let us turn to tea. The following paragraph appeared in the *Economist* for 10th December, 1932—

Tea Restriction. Once more an attempt is to be made to raise the price of tea by the restriction of supplies in India, Ceylon and in the Dutch East Indies. A few months ago negotiations were initiated by representatives of growers in the Dutch East Indies as a result of the drastic fall in their receipts. The average price of tea sold at Mincing Lane in July last was 7·27 pence per lb. against an average of 12·24 pence per lb. for the whole of 1931. In addition, Dutch growers have been adversely affected by the depreciation in the gold value of sterling and by the reimposition of the duty on April 20th last, at the rate of 4d. per lb. on foreign tea, as against 2d. per lb. on tea grown in the Empire. As about one-half of the world's tea exports are consumed in this country, Dutch growers found it impossible to evade the effect of the differential duty. After prolonged negotiations

between British and Dutch interests, it was announced on December 7th that an agreed scheme had been worked out by representatives of the Indian Tea Association, the Ceylon Association in London, the South Indian Association in London, the British Chamber of Commerce for the Netherlands East Indies, and the Amsterdam and Java Tea Associations. As the failure of the scheme of 1930 was largely due to the unwillingness of the Dutch authorities to assume control over native production and exports, it is proposed that the new scheme, which is to be operative for five years, should be controlled by the respective Governments. Supplies are to be restricted by means of export quotas. In order to avoid controversy, each country will be allowed to have its export quota based on the year of maximum exports between 1929 and 1931. The initial quota is to be fixed at 85 per cent for the first year, and subsequent quotas are to be determined at the end of each year. As agreement has already been reached by the various associations on the method of restriction, the measures will now be submitted to the proprietors of tea estates in the form of a referendum. Finally, provided that the result of the referendum is favourable, the sanction of the Governments concerned will be sought. As the completion of these two stages must take time, it is doubtful whether the scheme will come into operation before next spring. In view of past experience with restriction schemes it would be interesting to know whether provision is made in the present proposals to cease regulation before the rather extended period of five years in case it is found to affect adversely the position of the tea-growing industry in any of the participating countries.

Before the end of April, 1933, a provisional 15 per cent restriction of exports from tea-producing countries, and an agreement to cease new plantings, had been arranged, and prices at the tea auctions rose substantially. Within two months the governments of India, Ceylon, and the Netherlands East Indies had passed the necessary legislation to set up control of the industry in each of those regions. The scheme, which is very comprehensive, covers a five-year period from 1st April, 1933. Its principal feature is the prohibition of tea-seed exports and the cessation of fresh plantings or extensions to immature areas so long as the

agreement remains in force.¹ The quotas allotted to each estate or group of estates are based upon the years 1929-31, with a generous allowance for areas planted before April, 1933, and newly coming into production.

Heavy purchases by apprehensive tea traders caused the price of tea to rise sharply for a few months after the agreement was concluded. But from the end of 1933 until the beginning of 1937 wholesale tea prices (auction averages) fluctuated quite moderately between 12d. and 15d. per lb., whereas between 1927 and 1933 tea prices had fluctuated between 5d. and 22d. per lb. with a marked downward trend over the whole period. It seems, therefore, that for over three years the International Tea Cartel pursued a moderate policy and brought about fairly stable prices at a reasonable level. During 1937 tea prices showed an upward trend and rose somewhat above 15d. per lb. It is to be hoped, however, that the cartel will resist the importunities of investors and speculators in tea company shares, and hold firmly to its policy of moderation and stabilization, especially in view of the fact that the cartel has been renewed for a further five years from 1st April, 1938.

The agricultural crisis which came to a climax throughout the world with such dramatic rapidity in 1930-31,² caused many of those engaged in the production and marketing of cereals to contemplate the possibility of concluding, between various national organizations, agreements designed to avert sudden and violent fluctuations of prices. The League of Nations Economic Committee asked "whether it would really be chimerical for the two parties concerned—namely, the oversea countries on the one hand and the Eastern European countries on the other, to endeavour to arrive at an understanding, permitting the former to continue to supply Europe, while at the same time enabling the latter

¹ Since the tea plant takes seven years to mature, the effects of these restrictions, if loyally carried out, will be felt for some years after April, 1938.

² Cf. J. W. F. Rowe, *Markets and Men* (1935), pages 54-6.

to market the comparatively small surpluses of their production. It would seem that the two groups of producing countries must get together, consult each other and, if possible, seek an agreement."¹ Preliminary conferences on wheat production and marketing were held in Rome and London in the spring of 1931. To a certain extent conditions seemed favourable. Production was evidently outstripping demand; prices had fallen heavily, and were still falling, and national central organizations of wheat exporters already existed in Canada, U.S.A., Australia, U.S.S.R., and Yugoslavia. The London Conference was attended by representatives of Argentina, Bulgaria, Canada, Hungary, India, Poland, Roumania, Yugoslavia, the U.S.A., and Russia. The representatives of Canada and Argentina proposed the formation of a world ring of grain exporting countries with the object of regulating wheat exports so as to raise, and then stabilize, prices. All were in favour of this proposal except the United States representatives, who stated that it would be impossible for them to take part in the scheme because it would be contrary to American law.² Other more general obstacles to the success of the conference were—

1. The large number of wheat-exporting countries and the consequent difficulty of securing agreement upon all the details of the plan.

2. The lack of national organization in certain of the countries.

3. The difficulty of gauging the importance of Russia as a wheat exporter in the near future, and, therefore, of fixing a quota.

4. The rival possibility of a British Empire scheme.

Wheat stocks remained heavy, and the position of wheat growers in the "big four" exporting countries—Argentina, Canada, Australia, and the United States—grew so serious that the question of an international wheat agreement was

¹ *The Agricultural Crisis* (Geneva, 1931), pages 1, 66, 73.

² Cf. M. Paul de Hevesy's letter to *The Times*, 18th May, 1932.

among the items submitted to the World Monetary and Economic Conference in the middle of 1933. The Conference gave its blessing to certain principles before its dissolution, and left the interested parties to go further and secure a definite international agreement if they could. This they managed to do in August, 1933.

Under the Wheat Agreement, which was rather remarkable since it was made between importing as well as exporting countries, the four exporting countries named above agreed to limit their exports in 1933-34 and to reduce them by 15 per cent in 1934-35. Canada and the Argentine also undertook to restrict their wheat acreage, and so did the United States, whose change of attitude was due no doubt to the influence of President Roosevelt and his new industrial recovery propaganda. The importing countries agreed that when the "international duty-free price" of wheat has reached and remained at or above twelve gold francs per quintal for four months, they will consider adjusting their protective tariffs on wheat so as to allow of wheat imports; but the downward adjustments will not be so great as to make wheat growing "unremunerative" to domestic growers, nor so small as not to operate as a check upon further expansion of domestic wheat growing. The agreement contained no provisions either for the direct limitation of production or for the reduction of wheat stocks, and it left Russia's contribution to the scheme to be determined by "further negotiations." The Russians' reluctance to bind themselves was doubtless due to their desire to be free to export wheat without hindrance in exchange for imports essential to the development of their national economy in the near future.

The Wheat Agreement seems to have achieved very little. Acreage control on a large scale is very difficult to enforce, and, owing to variations in weather, it leaves room for considerable fluctuations of total output from one year to another. Moreover, hardly any of the importing countries showed readiness to deviate very far from the courses

upon which they were already embarked. Thus, the wheat acreages in Germany, Italy, and France in 1934-35 were slightly below the high peaks touched in the preceding year, but that is all. One of the leading exporting countries, Argentina, having harvested an unusually large crop, broke the Agreement by exceeding her export quota, and the International Wheat Advisory Committee, meeting in London in May, 1935, found themselves still faced with a large, though reduced, world wheat surplus, and with the task of squeezing from the quotas of Canada, Australia, and the United States sufficient to satisfy the insistent demands of Argentina for a larger export quota. At the same time the United States Secretary for Agriculture dangled a sword of Damocles by stating that in the event of a complete breakdown of the Wheat Agreement the vast stocks of wheat held by the United States Government would be thrown upon the world market. A further complication arose from the fact that France, normally a net importer of wheat, appeared with a large surplus available for export. It is not surprising that the Committee were forced to admit that "the operative clauses of the Agreement had in practice ceased to be fully applied," and could only suggest the continuance of the Committee until 31st July, 1936, and the preservation of the framework of the old agreement so that representatives of the twenty-one States might still be able to explore the possibilities of designing effective methods of international collaboration "to solve the wheat crisis" in the near future. Subsequently it was decided to keep the Committee in being until August, 1938, in order—

1. To continue the preparation of periodical reviews of the world wheat situation;

2. To investigate further the possibilities of encouraging the use of wheat (a) by human consumption in those areas where it is at present little used and where it might replace less nutritive cereals; (b) by animal consumption where surplus quantities are available; (c) through the

reorientation of agriculture in Western Europe towards a greater production of the "protective" foodstuffs, thereby increasing the demand for oversea wheat both in replacement of wheat no longer grown domestically and as a feeding-stuff for the additional live stock raised; and

3. To prepare a survey covering the fundamental economic and social factors affecting wheat production, consumption, and exports: technical aspects of cultivation, Government intervention in the shape of minimum or fixed prices, direct and indirect subsidies for export, the maintenance of remunerative prices by tariffs or quantitative import control, and all other relevant considerations, such as the probable future balance of production and consumption as affected by the above factors.

State action may affect international combines in two principal ways: (a) by legislation designed directly to help or hinder them, and (b) by legislation which influences them indirectly. Thus, as we have seen, a state may make laws compelling all producers of a certain commodity within its jurisdiction to join an international cartel; or it may exert pressure by granting special privileges or concessions only to those who consent to join the combine. State action of this type is very useful to the parties to an international combine, such as an output restriction scheme, as the most effective method—and, indeed, it may be, the *only* effective method—of making the scheme sufficiently complete. But if this essential degree of completeness proves impossible to achieve, no individual government should go forward alone, for by so doing it will, at first, raise the hopes of its nationals, and in the end it will most certainly bring down upon itself severe criticism for causing restriction of production within its own borders, while the producers of certain other states have been free to forge ahead and capture a larger proportion of trade.

In 1932, as a result of internal difficulties regarding the output quotas of Italian sulphur producers, the Italian Government terminated the International Sulphur Cartel,

formed in 1923 between the Americans and the Italians. Subsequent events show that the Italian Government's action was ill-advised from the Italian point of view, for the Americans, assisted by the depreciation of the dollar, cut their prices drastically, and stocks of sulphur in Sicily soon rose to about 200,000 tons. This led to the establishment of a central sales office, subsidized by the Italian State to the tune of ten million lire to enable it to sell in the world market at the same prices as the Americans. Towards the end of 1934 it was announced that the Corporations Ministry in Rome was seeking to bring about an agreement between the two Italian groups—the Sicilian, high-cost producers, and the Montecatini, low-cost producers—and at the same time to resuscitate the lapsed Italo-American cartel arrangements, with the ultimate object of raising sulphur prices.

Tariff laws are the chief form of legislation which influences international combines indirectly. Before the War, Professor Jenks argued that the removal of tariffs, by strengthening foreign competition, would tend to bring about the formation of international combines where they did not already exist.¹ On the other hand, the League of Nations industrial experts have recently asserted that "it is . . . tariff protection which, though not the sole factor in the case, often facilitates the establishment of national industrial agreements."² The truth seems to be that protective tariffs indirectly influence the formation of international combines because, in the first place, an increase of protectionism diminishes the free markets of the world, and thereby helps to intensify competition in those that are left; and in the second place, tariffs play an indirect part in facilitating the formation of national combines from which international combines may be formed. Tariff legislation arises very largely from the same set of conditions as international combines, namely, depression of trade and

¹ Jenks, *The Trust Problem* (1907 edn.), pages 47-8, 221-2.

² *General Report on Economic Aspects of International Industrial Agreements*, page 31.

intense competition, which make producers desire both tariffs and combines. Usually, they try first the national "remedy," and attempt to shelter behind the skirts of the mother country. Later, when the various national groups of producers find that this method does not answer (for it frequently stimulates the production of large export surpluses and so intensifies competition in export markets) they resort to international combination.

The actual detailed negotiation of an international agreement is, of course, made more difficult by the existence of widely different tariff laws and scales of duty in a number of different countries. As regards "home" markets, to give but one example, those producers who enjoy most tariff protection will be, *ceteris paribus*, in the strongest bargaining position, and they may, on that account, be tempted to demand more than others will be prepared to concede.

The sudden closing of one or more important markets (e.g. the closing of the United States market by prohibitive tariffs on certain goods) intensifies international competition in the markets remaining open, and the situation is aggravated if the producers in the closed territory begin to export, or to increase their exports, into the open territories. Out of such a situation an international combine may emerge; and conditions are particularly favourable when none of the competing producers can reasonably expect to achieve any great technical or other advantages over the others, and when prices have been reduced to a point which threatens to eliminate profits. In the European zinc industry before the War, marked fluctuations in the price of crude zinc on the metal markets of Britain and Germany eventually gave rise to the formation of an international combine by producers in Austria, Germany, France, Britain, Belgium, and Holland. Between 1910 and 1914 this combine controlled about five-eighths of the world output of zinc. Its chief object was to prevent over-production and to secure better prices for the metal by restricting output when monthly stocks amounted to 50,000 tons

and the average (London) price had for two months been below £22 per ton. Since the War a great change has come over the situation, for new producing areas have been opened up, notably in Canada and the United States, and their surplus output has been exported to Europe. Thus the tables are now completely turned. Not only is the American market practically closed to European producers, but the European market, already overstocked by the reduction of exports, is flooded still further by the surpluses exported from America. Much the same thing has happened in the lead industry; and in both industries the European producers have resorted to international cartels, but so far these have been very impermanent and not entirely successful in other respects. The Zinc Cartel, formed in September, 1928, was revised in January, 1929, and dissolved at the end of that year.¹ It was revived in the middle of 1931. The original agreement, known as Contract A, provided that if and when the price of zinc fell to or below £24 per ton, European producers would restrict their outputs to the amount produced by them during the two months preceding the fall in price. This Contract never actually took effect, for prices remained above £24 per ton, and stocks of zinc increased in such a marked manner that the cartel decided to replace Contract A by Contract B, which provided for closer co-operation between European producers, restriction of Canadian and Australian exports, and restriction of output if the price fell below £27 per ton. This agreement had to be renewed every three months, "which was obviously too short a period to inspire producers with any confidence."²

The admission of the British steel producers (organized in the British Iron and Steel Federation) into the International Steel Cartel in the summer of 1935 is an outstanding example of the deliberate use of prohibitive

¹ League of Nations Report, *The Course and Phases of the World Economic Depression* (1931), page 138.

² League of Nations *Review of Several International Industrial Agreements*, page 19.

tariffs to extort favourable terms from a well-established and important international cartel.

By the terms of the agreement imports of all iron and steel products into Great Britain from cartel countries are not to exceed 670,000 tons in the first twelve months; and subsequently they are not to exceed 525,000 tons a year. Meanwhile British exports to "neutral" markets are to be stabilized at the proportion of total exports recorded in 1934. The general agreement will be supplemented by the detailed agreements to be made affecting the various sections of the iron and steel trade. Unquestionably the new agreement is exceptionally favourable to the British industry. The import quota for the coming year of 670,000 tons is not much higher than the figure of 643,000 tons recorded in 1933, the lowest for many years; and the quota for the subsequent four years is to be actually lower at 525,000 tons. This compares with an actual peak import of 2,840,000 tons in 1931 and an offer by the Cartel in April of 643,000 tons. Moreover, the year 1934, a comparatively good one for British exports, has been taken as the basis for fixing our proportion of exports to neutral markets. The concession of such favourable conditions by the Cartel is certainly in part due to the threat implied in the temporary raising of the British import duties from 33½ per cent to 50 per cent in March; though the present steady expansion in the Continental and world demand for steel, and the restlessness of the Belgian adherents of the Cartel, doubtless also played a part. Naturally the agreement will be hailed as a great boon for the British industry and a triumph for tariff bargaining.¹

In passing it may be mentioned that if the economic pressures are sufficient, international conferences and international trade associations, although cumbersome and slow in their movements, may be instrumental in opening the way for the formation of international combines at some future time. Moreover, international agreements for limited and specific objects are not without importance, since they may subsequently develop into agreements of a more comprehensive character.

¹ *Economist*, 15th June, 1935. Cf. *Report of the Import Duties Advisory Committee on the Present Position and Future Development of the Iron and Steel Industry* (Cmd. 5507, 1937), pages 20-22.

CHAPTER IV

FORMATION (II): OBSTACLES

ALL the obstacles to the formation of national combines hinder, often still more obstinately, the formation of international combines. There may be leaders of important companies who hold that the structure of their industry does not lend itself to the operations of giant units; or there may be powerful independent producers who prefer to remain autonomous. Perhaps they cannot bring themselves to co-operate with persons and companies they have long regarded as rivals, especially if the rivals are foreigners. Or it may be that in negotiating about quotas and profits, this or that producer insists upon a larger share than the other parties regard as reasonable, and therefore no agreement can be reached. Where the home market is already virtually reserved by means of prohibitions or high protective duties, reservation of the home market under the terms of an international agreement is not usually a great bait in the eyes of large producers already entrenched in that country. If they are to be brought into an international combine and kept there, other attractions must be offered. Nor is the battle always won by the biggest units. The balance of advantage may easily swing in favour of any national group which can achieve greater unity than others; or which happens to realize that it is in a strong bargaining position. "No international cartel in the heavy industries," said an industrialist to Mr. Charles Hallinan, "is stronger than its Belgian link. That goes for cartels in coal, iron, and steel, in heavy rails, in tubes. Your Belgian industrialist, caught between France and Germany, has learned to drive the hardest international bargains you ever saw. Did you notice that the negotiations for the international raw steel syndicate dragged on for months . . .

because Belgium was not satisfied with its quota? The Belgian motto is: 'We are not satisfied.' It is a great motto and it has carried them far."

Those who favour international agreements between coal producers as a means of relieving the troubles of the coal industry urge that the number of countries producing coal in very large quantities is not great. The North American coal trade stands by itself; and if the producers of Great Britain, Germany, France, Poland, Belgium, and Holland could be brought together, the combine would cover approximately 90 per cent of total European output. But they have to face the serious obstacles presented by the lack of close national combination in the coal industries of several of the European countries mentioned. The British industry still stands out, even after the Royal Commission of 1926 and the Coal Mines Act, 1930, as an example of this lack of close organization. The German industry is at the other extreme; and the coal industries of the other countries stand in between. Many competent authorities agree (a) that there are strong arguments in favour of the realization of the idea of an international coal agreement, and (b) that the various national industries must first organize themselves, or be organized by the governments "so as to be able to speak and act as a single authority for the industry as a whole."¹ Each industry must, as an essential first step, set up an official and effective body to conduct international negotiations and conclude international agreements. But the absence of such bodies in a sufficient number of countries is by no means the only obstacle to international agreement in the European coal industry. There is, for example, the re-direction of the trade in coal

¹ International agreements were recommended by the Economic Committee of the League of Nations in their interim report (1929) on "The Problem of the Coal Industry." Cf. also *Statistical Journal*, Part I, 1930, pages 1-27; and *Manchester Guardian Commercial*, 30th July, 1932, page 89. Two fairly recent books on this subject are André Duboscq, *Le Conflit Contemporain des Houillères Européennes* (1936), and Ernst George Lange, *Steinkohle; Wandlungen in der Internationalen Kohlwirtschaft* (1936).

since the War, which "would be regarded as permanent by those who have benefited and as temporary by those who have suffered, and this conflict of view would lead to difficulties in determining the precise scope of an agreement."¹ "The extent of dispute over international quotas, division of trade, and other matters is very large," and it is not likely to be easy "amicably to compose the claims of seven European countries; but the gravity of the situation demands that it should be faced and, if possible, accomplished."²

Unfortunately for those who wish to see an international coal cartel established, the obstacles have, on the whole, been increased by the "artificial" direction given to the European coal trade in recent years by barter pacts, exchange agreements, subsidies, and import restrictions. On the other hand, an Anglo-Polish coal cartel was brought into operation at the beginning of 1935. A joint supervising committee was set up, and it was agreed that differences should be settled by arbitration and that penalties should be enforced in the event of non-observance of the terms of the agreement as to quantities or prices. Until 1935 competition between British and Polish coal exporters had been exceptionally keen, and one of the aims of the agreement was to end this and raise prices. The supply of bunker coal at each country's home ports was excluded from the scope of the agreement, and so were British deliveries to Ireland and America, and the Polish

¹ Prof. J. H. Jones in *Statistical Journal*, Part I, 1930, page 27.

² Mr. A. W. Archer in *Manchester Guardian Commercial*, 30th July, 1932. The first small step towards compulsory combination was taken in Great Britain in November, 1932, when the Coal Mines Re-organization Commission set up under the Coal Mines Act, 1930, served a "notice to amalgamate" upon the colliery owners of Fife-shire and Cannock Chase. The statutory procedure is as follows: If the colliery owners fail to submit an amalgamation scheme to the Board of Trade, the Commission must formulate one. All schemes must be submitted to the Railway and Canal Commissioners, who can sanction them only if they seem (a) likely to be in the national interest, (b) likely to result in a reduction of the cost of production or disposal of coal, (c) not financially injurious to any of the undertakings concerned, and (d) fair and equitable to all persons affected. Cf. also *The Economist*, 26th November, 1932, page 993.

land-sale trade with Czechoslovakia, Austria, and Hungary. Subject to these and a few other minor exceptions, the agreement provided that Polish exports should be about 21 per cent of those from Great Britain. In spite of occasional adjustments, Polish exports during 1935-37 exceeded this proportion. In 1935, for example, Polish exports reached a ratio of 22.2 per cent; in 1936, 23.6 per cent, and in the first half of 1937 the percentage rose as high as 25.8. It was, perhaps, to be expected that a cartel which left out the Germans—the most active competitors—would work imperfectly, and many people have doubted the wisdom of restricting Polish exports to a given percentage of British exports, seeing that the latter have been kept in check by severe, and even reckless, German competition. But the majority of the members of the cartel apparently believe that the agreement has, on the whole, been advantageous to them. It certainly checked competition and led to higher prices in a number of markets, and many people in the trade hope that it may pave the way to a cartel which shall include the Germans, the Belgians, and the Dutch. At all events the Anglo-Polish cartel was renewed at the end of 1937, after certain concessions had been made to the Poles.

Among the possible obstacles likely to thwart, or at least hinder, attempts to "valorize" certain commodities by international combination we must include disparities in conditions and costs of production of the same commodity in different regions, or even in the same region; and the large range of qualities of certain products. Thus, as Mr. Austin Robinson remarks, there is "a world of difference between the problems of cartelization in, let us say, the potash industry, and in the British cotton, or even coal, industry, with specialized firms selling different products in a number of different markets."¹

All producers may not be *equally* interested in the formation or revival of a given international combine. Such a

¹ *Economic Journal*, September, 1935, page 537.

situation existed in the European zinc industry not many years ago. The Belgian and Polish producers, who need to export large quantities, were much more interested in the formation and satisfactory working of an international zinc cartel than the British, French, and German producers, who look chiefly to their home markets which are able to absorb very large amounts of zinc. We have seen that an attempt to form an effective international zinc cartel in 1928-29 failed. The chief cause of its dissolution was lack of sufficient support, and it was not until the output and price situation had become "desperate" in 1931 that a greater measure of success was achieved. The International Zinc Cartel which represented approximately 90 per cent of world capacity, exclusive of the U.S.A.,¹ attempted to arrest the fall of zinc prices by restricting output to 55 per cent of capacity from 1st August, 1931. But prices continued to fall, and output was eventually restricted to 40 per cent of capacity after 1st August, 1932.² In June, 1933, it was announced that—

Negotiations for the renewal of the international zinc cartel for a period of two years from the end of July have been postponed, by mutual agreement, until the end of October. Until then production will continue to be limited to 45 per cent of the normal capacity of the works concerned and the system of indemnities to be paid whenever the fixed production percentage is exceeded will remain in force.³

By the spring of 1936 a new situation had evolved. The Belgian Vielle-Montagne group, which had previously taken the lead in the international negotiations and in the actual administration of the cartel, regained its profit-earning capacity and therefore became much less interested in international cartelization. The absence of unanimity

¹ *Economist*, 16th July, 1932, pages 110-11.

² *Economist*, 23rd July, 1932, page 170.

³ *Manchester Guardian Commercial*, 10th June, 1933. By November, 1933, many producers were urging that the quota should again be reduced below 45 per cent.

among the other Belgian zinc producers was an additional obstacle.

The international cartel which aims at price control in the kraft paper industry could not be formed until the important Scandinavian and Finnish mills had been persuaded to join with the British, so that the chain then contained all the essential links.

The difficulties of enlisting sufficient support for a projected international agreement, perhaps throughout a whole continent, or even the world, may be overcome with the aid of various interested governments, as was done, for example, in the tin industry. But, on the other hand, the attitude and laws of one or more states may effectually obstruct the formation, or success, of an international combine. "A community may accept the evolution of competition into a type of industrial administration" based upon combination, "relying always on the foreign market for limitation of monopolistic policy. When this guarantee is endangered, it may go back on its assent to national combination *under purely private leadership*."¹ Thus we pass to the question of the attitude of states towards combines.

Since the jurisdiction of governments remains national, while the ramifications of many business interests and organizations are becoming more and more international, nearly every international combine finds itself subject to two or more separate and more or less different bodies of law. While producers in certain countries may be encouraged or even compelled to join international combines, in other countries producers may be precluded from joining by some national law which prohibits certain business methods or types of business organization, or any action likely to lead to monopolistic powers over certain commodities. Thus producers in a country where all quota arrangements are forbidden by law cannot join any international combine if this would involve accepting and working under a quota

¹ Macgregor, *Enterprise, Purpose and Profit* (1934), page 154.

agreement. *A priori* it would seem that all international combines would be much harassed and hampered by the task of avoiding collisions with the laws of particular states, and that this would seriously check their formation. But the actual interpretation and enforcement of such laws are generally much less stringent than their actual letter; and so long as international combines do not flaunt flagrant abuses before the national authorities, they find, on the whole, few insuperable obstacles to the majority of their activities and aims. Occasionally, however, politically free peoples, accustomed to thinking for themselves and managing their own affairs, will oppose the establishment in their countries of the branches or subsidiaries of foreign combines, especially if the latter have already acquired unsavoury reputations elsewhere. In order to minimize interference by states hostile to them, international combines usually locate their central offices in countries where no such hostility exists.

The international expansion of combines may sometimes be checked in an indirect manner. For example, the extensive and increasing grip of the American "big three"—Gaumont, Metro-Goldwyn-Mayer, and Twentieth Century Fox Films—on the cinematograph film industries of the world, including that of Great Britain,¹ eventually gave rise to a reaction in this country in favour of the production and exhibition of essentially British films. Seeing that British history and literature are rich in material for good film "stories," and that there is abundant ability and skill among contemporary British producers, actors, and technicians, it was "felt" by a great many people that this material and talent ought to be making a distinctive contribution to the new form of dramatic art.² The Cinematograph Act of 1927, which gave legislative expression to this desire, requires every renter and exhibitor

¹ Klingender and Legg, *The Money behind the Screen* (1937).

² Cf. Plummer, *New British Industries in the Twentieth Century* (1937), pages 315-41.

in this country to acquire and show in their ordinary programmes certain prescribed minimum lengths of British-made films. But for this new national policy, lately confirmed and strengthened by fresh legislation, the American film combines, which are already tremendously powerful in Britain and other countries, would certainly have succeeded in dominating completely the film industry of this country and the British Empire.

The hostility of United States law towards monopolies and restraints upon freedom in trade and industry is very well known. The Sherman anti-trust act "condemns not only attempts to put trade rivals out of business but also unreasonable voluntary restraints of trade, that is, it prohibits competitors themselves from getting together by means of trust agreements, holding companies, or any combination for the purpose of unreasonably and voluntarily suppressing all competition with each other. . . . There has been . . . a general belief that the Sherman anti-trust law affords a protection to the public against large combinations of wealth which, because of the power thus obtained, may act injuriously against the public."¹

It is clear that the activities of any international combine which included American undertakings might easily come within the scope of this interpretation of American law. Certainly no hampering of the foreign trade of the United States will be tolerated. In the case of the *American Tobacco Company v. the United States* the court condemned a covenant entered into by the Imperial Tobacco Company, the American Tobacco Company, and the American Cigar Company, under the terms of which the two American Companies agreed to refrain from business in Great Britain and Ireland, while all three abstained from business of a specified character in countries *other than* Great Britain, Ireland, and the United States of America. The Clayton

¹ W. S. Culbertson, *International Economic Policies* (1925), page 420. For a very clear discussion of the legal position, see A. L. Haslam, *The Law Relating to Trade Combinations* (1931), Chapter VI.

Act of 1914 prohibits the holding by one company of shares in another if the result is a diminution of competition or a tendency to establish a monopoly. Price discrimination between different customers is also illegal unless good reasons can be shown. The task of the Federal Trade Commission is to examine and report on all practices which infringe the anti-trust laws; to prevent "unfair competition," and to advise the Government with a view to bringing business organizations into line with the law. Under this body of law many decrees purporting to restrain and dissolve monopolistic combines have been promulgated. A good many have been effective: some have not. An outstanding example of partial failure is the attempt to break up the great Standard Oil concern. It seems to be generally admitted that effective competition between the constituent companies of the Standard Oil Company of America has never been restored, in spite of the legal dissolution of that company in 1911. "The group retained its essential unity, and has in recent years greatly expanded by the absorption of other oil undertakings both in the United States and elsewhere. It controls approximately 28 to 30 per cent of the world output."¹

Combination in the form of pooling agreements took place in the meat-packing industry in the United States as early as 1885. After a period of competition, Swift & Co., Armour & Co., and Morris & Co. combined in an attempt to control prices by regulating the quantity of meat shipped. Later on, shares were exchanged, subsidiary companies were formed to run various branches of the meat industry in North America, Argentina, Australia, and Great Britain; and a number of relatively small American companies were bought up or closely linked by agreement with the combine. The American firm of Hammond & Co., and the Cuhady Packing Company were not regular members, but were included from time to time. The important firm of

¹ Balfour Committee on Industry and Trade, *Factors in Industrial and Commercial Efficiency*, page 113.

Schwarzchild and Sulzberger, however, remained definitely outside the combine until 1898. During the following six years the combine controlled about 60 per cent of the total trade in fresh meat in the United States.

Those who tried to remain outside the combine soon found themselves in a very awkward position. Since the combine owned "all the refrigerated cars in the country, the produce the Trust did not actually control had to be transported in the Trust's cars. By charging for 'icing' at exorbitant rates the profits of a competitor's trade could be regulated. For many years also a secret rebate of $\frac{3}{4}$ cents per mile per truck was paid to the Trust by the railroad company for the privilege of sharing in the Trust's business."¹ In relation to the farmers the Trust was a buyers' combine, and it is alleged that it engaged without scruple in monopolistic price-fixing. Members of the combine agreed not to bid against one another at the cattle sales "except perfunctorily and without good faith." When a shortage of cattle occurred at the stockyards, prices were raised just long enough to induce farmers to dispatch cattle to the sales, but by the time of their arrival the combined buyers would reduce the price considerably and higher bids could not be obtained. But, on the other hand, the combine kept up the prices at which it sold its products to dealers.

These double-edged activities caused anxiety among farmers and consumers far beyond the frontiers of the United States. In Great Britain consumers did not relish the thought that about 50 per cent of their frozen meat supplies were controlled by a powerful foreign combine; and in Australia the farming community, bearing in mind the experiences of the American stock-rearers, watched the activities of Swift and Company's branch with a jealous eye, and more than once hinted that legal means might have to be taken to protect one of the chief industries of Australia by preventing the meat combine from getting a

¹ H. L. Wilkinson, *The Trust Movement in Australia* (1916), pages 127-8.

monopolistic grip upon the beef export trade. The producers and consumers of meat in the United States—both very large groups of people—became first alarmed and then markedly hostile to the combine, and an attempt to dissolve it was begun by the United States Government in 1902; but the defence was vigorous and clever, and after a long series of legal actions covering a period of ten years, remarkably little real damage had been inflicted upon the combine. In 1920 a more successful attack was made and the Court issued a comprehensive injunction. This time the combine “bent to the storm”; but it remains doubtful whether anything like complete competition exists even now.¹

It is important to remember that American firms and companies may enter into agreements and associations in order to exploit foreign markets. The Webb-Pomerene Act of 1918 permits American companies or associations formed for export purposes to combine with organizations in other countries, and as long as the members of these combines keep within the anti-trust laws in their operations within the United States, the United States government is unlikely to seek trouble by concerning itself with their actions elsewhere.² Moreover, reports from the United States during the great slump suggested that the American government was inclined to be rather less strict, at least

¹ E. Jones, *The Trust Problem in the United States* (1922), pages 403-5, 485-90, 497.

² The following paragraph is from *The Economist* of 17th December, 1932 (page 1137)—

“The world copper conferences began this week, but a difficulty was encountered early in the proceedings with the insistence of the Roan Antelope interests upon an increase in their quota. The company, it is reported, instead of keeping to the 20 per cent of capacity production as agreed upon a year ago, increased to 50 per cent of capacity, and now insists on an 80 per cent increase over the previous quota. This the other companies seem unwilling to allow, on the ground that it would imperil the whole restriction scheme. Only such American companies as have foreign mines are meeting, as this conference is under the aegis of the Copper Institute, and not Copper Exporters, as was the last. Domestic concerns wish to avoid any implication in price-fixing schemes that might involve them in anti-trust prosecutions, but that does not apply to the foreign field.”

for the time being, in its interpretation and administration of the anti-trust laws.¹ But a trade revival may bring in its train a return to the earlier, more stringent attitude.

The following is a brief outline of the legal position with regard to combines in various other countries.

Austria. Under Austrian law, before the *Anschluss* with Germany (1938), the number of parties in a combine, the commodities dealt in, and the scope and duration of its operations, were immaterial. It was sufficient if the combine's *intention* to raise prices was proved; or if the consumer had been "placed in a less favourable position"—a phrase open to a variety of interpretations. "Unfair" competition was frowned upon by the State, and combines to combat unfair competition were permitted. Agreements with former competitors to close down factories were regarded as an unwarrantable restriction of free competition, and rationing of production in order to force prices up was deemed contrary to public interests. In future, no doubt, this section of Austrian law will be brought into line with German law.

France. All sorts of industrial and commercial agreements and combines are lawful in France; but such as bring about, or attempt to bring about, fraudulent manipulation of prices in order to gain "excessive profits" are liable to punishment. Unfair competition also is an offence. Fraudulent manipulation of prices is punishable under the Criminal Code; but unfair competition comes under the Civil Code and the penalty is usually damages. The French, like the Belgians and Italians, try to draw a line between the "bad" actions of combines, which are punishable, and their "good" actions, which are not. The present French attitude towards the combine movement is favourable, because it is thought that other nations, by means of such organizations, have forged ahead of France in industrial and commercial progress. The French feel that if they are not to be left out, if

¹ See e.g. *Manchester Guardian Commercial*, 17th September, 1931, page 243; 27th August, 1932, page 169. Cf. also the Appalachian Coals Case (1933).

French industries are not to "succumb beneath the weight of . . . gigantic international combines," they must follow a similar course, and organize not only to withstand the competition of foreign combines, but to enter into agreements with them in suitable cases. Several recent international industrial agreements, in connection with potash, steel, aluminium, cement, and dyestuffs, were definitely encouraged by the French government.

Belgium. Under Belgian law it would be unlawful for persons within Belgian jurisdiction to conclude an agreement in Belgium to raise prices either in the home market or abroad. There is a *criminal* penalty for forcing up prices in the home market but not for raising or designing to raise prices in foreign markets. But industrial agreements, combines, cartels, and trusts are not prohibited or molested in Belgium if they do not aim at producing *abnormal* effects upon prices. For example, an agreement or combination to regulate output in order to avoid over-production and consequent gluts would not be deemed unlawful.

Germany. The German State has long looked favourably upon combines, and has been prepared to aid in their formation by using its coercive powers if such a course seemed likely to bring economic benefit to Germany; e.g. by placing a German industry in a position to present a united front in negotiations for the formation of an international combine. Thus, in 1910, a law was passed establishing a *compulsory* syndicate for the sale of potash salts, and this was supplemented by the law of 1919. Also, since 1919, the German government has power, in the absence of voluntary combinations, to compel firms and companies to form syndicates on prescribed lines, for the sale of coal and coke of all kinds. The *Kartellverordnung* of November, 1923, was aimed only at the *abuse* of powerful economic positions; not against the rise and growth of combines. It is interesting to notice, on the other hand, that a law of 1927 relating to the manufacture of matches, was passed mainly with the object of *preventing* the absorption of the

German Match Sales Company by Ivar Kreuger's International Match Trust.

There is no reason to anticipate a reversal of German policy relating to combines in the near future. Indeed, under the Nazi regime State coercion and control of productive industry has increased. The Minister of Trade and Industry has wide dictatorial powers over cartels; and all cartels must furnish very full information regarding their organization, scope, and connections for entry in the cartels register.

Italy. The Italian Government looks upon international industrial agreements with favour when an Italian industry (e.g. mercury production) can participate advantageously, but with definite disfavour in other cases, chiefly because it thinks that these combinations tend to make permanent the present shares of various national units in total world production, whereas the Italian Government desires to see Italy's share of world industrial production and trade increase in as many departments as possible. The possibility of having to pay more for imports of necessary goods produced almost exclusively by foreign combines is also repugnant to the Italian authorities.

Great Britain. At English law, agreements in restraint of trade are void unless it can be shown that there are special justifying circumstances; and a restraint can be justified before the Courts only if it is reasonable in the interests of (a) the contracting parties, and (b) the public. Therefore a contract calculated to produce "a pernicious monopoly, that is to say, a monopoly calculated to enhance prices to an unreasonable extent" would be regarded as unreasonable and not in the public interests: but in the case of *North Western Salt Co. v. Electrolytic Alkali Co.* it was held that a combination to regulate supply and keep up prices is not necessarily disadvantageous to the public.¹

It is now recognized that, under modern commercial conditions, a price-controlling agreement may be in the

¹ Anson, *Law of Contract*, Chapter VII, paragraph 1

interests of trade rather than in undue restraint of it, and when once that view has been accepted, the ground of public policy, on which earlier decisions had been based, was gone. So it came about that in 1926 the Court of Appeal held that there is now nothing necessarily unlawful in a combination intended to maintain prices and to secure its intention by means of a "stop list."¹

On the whole, the State's attitude in Great Britain has traditionally been one of neutrality towards industrial combines; but in recent years British governments have shown themselves favourable to combination and closer association in particular industries—e.g. in the railway, coal mining, iron and steel, electricity, and London passenger transport industries—where public interests seemed likely to be better served thereby.

Canada. The Canadian criminal code declares illegal all combinations and conspiracies "to unduly limit" or restrain manufactures, trade, or transport; while the Combines Investigation Act of 1923 contains a comprehensive definition of a combine, and declares unlawful those which operate to the public detriment. An elaborate procedure is laid down for the investigation of the affairs of suspected combines and monopolies, and penalties may be imposed where combines have acted contrary to the public welfare. The withdrawal of patent rights and tariff protection are among the possible legal sanctions.

Australia. The series of statutes known as the Australian Industries Preservation Acts, 1906–10, were intended primarily to prevent foreign combines (e.g. the meat or oil trusts) from establishing themselves and their anti-social activities in Australia, but all kinds of "destructive monopolies" can be dealt with under the Acts.

New Zealand. New Zealand's attitude and legislation are very similar to Australia's and spring from the same hostility to foreign combines.

¹ Cf. *Manchester Guardian Commercial*, 15th May, 1936, page 440, and 12th June, 1936, page 540.

Norway. Norwegian law compels combines which aim to control prices, conditions of production, or marketing in Norwegian markets to register and give certain confidential details (e.g. of prices and turnover) which the authorities have power to verify, with or without the consent of the combine, by referring to the relevant books, vouchers, reports, etc. Upon the information so obtained the Government decides what action, if any, to take in the general public interest. The policies of combines are thus brought under a form of state control, directed mainly to the prevention of exorbitant prices. Specific mention is made of owners or managers of businesses which are under the influence of foreign undertakings or combines "whose influences upon the prices of the goods in question are of vital importance in one or more countries."¹

Hungary. The law No. XX of the year 1931 deals with the cartel problem. Until then there was no legal regulation of the problem, and no cartel agreement could be the basis of a lawsuit. The law No. XX (1931) made cartel agreements legally enforceable. The decree of the Minister-president No. 5381 of the year 1931 rules that each cartel agreement has to be sent to the Minister of Industry, and cartel agreements are only valid if a document is so registered. This is also the case in regard to international cartels, if one of the participants has his domicile in Hungary.

¹ League of Nations *Review of the Legal Aspects of Industrial Agreements* (1930), page 73.

CHAPTER V

MARKETS, TARIFFS, AND QUOTAS

A BELIEVER in free trade might judge international combines by the extent to which they succeed in setting at naught the political frontiers which obstruct economic activities. The application of this test would probably cause him to condemn them on the ground that most international combines, and more especially international cartels, are strongly tainted with protectionism. International cartels, for instance, "are often mainly means of protecting the producers of each country by securing the home market from foreign competition. They thus represent a nationalist conception . . ."¹ Where any nation is pursuing a free trade or low tariff policy, the "reservation" of its domestic market in certain products to home producers under a comprehensive and effective international agreement is, as Professor Macgregor points out, a reversal of national public policy by international private arrangements. "The suggestion to rationalize international production by giving to private interests a treaty power overriding that of the governments concerned, compels us to consider in what form such international relations are compatible with any system of domestic combination."²

The British dyestuffs industry furnishes an extremely interesting example of the complications which may ensue when international private arrangements are, as it were, superimposed upon public arrangements.

Shortly before the outbreak of war in 1914 a limited amount of international linking had taken place between certain dyestuffs manufacturers. Thus, the British

¹ Richardson, *Economic Disarmament* (1931), page 105. Cf. H. R. Tosdal in *Quarterly Journal of Economics*, February, 1917, page 266.

² D. H. Macgregor, *Enterprise, Purpose and Profit* (1934), page 154.

Alizarine Co., Ltd., had competed so successfully with the German manufacturers that the latter were compelled to admit the British company into the Alizarine Convention. Brotherton & Co., Ltd., another firm of dye-makers, apparently British, was actually jointly owned by three German companies; while the Clayton Aniline Co., Ltd., was owned, before, during, and after the War, by three Swiss concerns.¹

In 1920 the Dyestuffs (Import Regulation) Act was passed for a period of ten years (and subsequently extended), with the object of encouraging and assisting British dyestuffs manufacturers to build up a substantial dye-making industry in this country. The Act prohibited all imports of foreign dyes, but allowed the issue of import licences in respect of any dyestuffs not obtainable from British makers at prices at least as low as those quoted by foreign competitors, "dumping prices" always excepted. Before the passing of the Import Duties Act, 1932, these licensed imports came in free, but now they are subject to an *ad valorem* duty of 10 per cent; so that the British dye-makers are doubly protected.

During the past ten or twelve years a tendency towards consolidation has shown itself in the British dyestuffs industry; a gradual movement at first, but quite marked since 1927-8. Imperial Chemical Industries, of course, played the leading part by acquiring such undertakings as the British Dyestuffs Corporation, Ltd., Scottish Dyes, Ltd., British Alizarine Co., Ltd., and Emco Dyestuffs, Ltd. There remains still a quite important "fringe" of non-combine dye-makers, but "the greater part of the dye-making industry in this country is now under one control."² Nor has this combination and consolidation

¹ *Report on Dyes and Dyestuffs* (Cmd. 1370, 1921), pages 7-8. The Committee, set up after the War under the Profiteering Acts, stated that the British Alizarine Co., Ltd., was (1921) practically owned by the United Turkey Red Co., the Calico Printers' Association, and certain other firms in the textile industry.

² *Third Report of the Dyestuffs Industry Development Committee* (Cmd. 4191, 1932), page 8.

movement stopped at national boundaries. Early in 1932 an international agreement was reached between Imperial Chemical Industries, the I.G. Farbenindustrie A.-G. of Germany, the Nationale de Matières Colorantes of France, and three Swiss companies. A recent "white paper" states—

Discussions towards this end have been proceeding at various times, and in view of the great expansion of dyestuffs manufacture since 1914, due to the efforts of several countries to establish domestic dye industries and the resultant surplus producing capacity, some agreement between the principal world producers was probably inevitable. The terms of the agreement have not been disclosed, but the Committee have been informed by a representative of Imperial Chemical Industries, Limited, that it does not contain any provision which would impede or restrict the technical or scientific development of any of the companies concerned, nor does it comprise any selling price arrangements. Moreover . . . it does not impose any limitation of the British Colour Users to obtain new products of foreign manufacture. The main object of the agreement was an endeavour on the part of the firms concerned to stabilize their share of the world trade in dyestuffs.

It might be contended that the existence of an international arrangement between a large section of British and Continental dye-makers renders protection of this industry unnecessary, but this contention is unwarranted inasmuch as attack remains possible on the part of other makers both in the old world and new. For this reason the constructive work carried out under the Dyestuffs (Import Regulation) Act, 1920, might be thrown away with results that would be disastrous to the industry and also from a national point of view. Moreover, a continuation of the present Act is the best means of protecting the industry from this grave danger of attack. The number and variety of dyestuffs used by this country is so great that it is essential to have detailed information made available by the licensing system in order that the manufacturers in this country may by appropriate discovery and practical invention keep themselves abreast of the dye-users' requirements.¹

¹ *Third Report of the Dyestuffs Industry Development Committee* (Cmd. 4191, 1932), pages 8-9.

Against this the representatives of the Colour Users' Association contended that—

The agreement reached between Imperial Chemical Industries, Limited, and the Continental Group of dye-makers, constituting as it undoubtedly does a virtual monopoly, removes the necessity for the protection afforded by the Act.

The Dyestuffs (Import Regulation) Act, supplemented by the recently formed international cartel, prejudicially affects the industries represented by the colour consumers (including the textile trade, which is the largest exporting industry of "wholly or partly manufactured goods") . . .

In view of the statement that the international agreement . . . does not comprise any selling price arrangement, it is conclusive that the British makers cannot substantiate their statement that British users are now being charged world prices, neither for domestically produced colours nor for imported specialities. Further, as the result of this agreement, British users are precluded from competitive buying in approximately 90 per cent of their requirements.

The conclusion of the international agreement was followed almost immediately by substantial increases in the selling prices of domestically made dyestuffs with complete disregard for the precarious condition of many of the consuming industries during a period of national crisis. The experience of users since the formation of the Cartel is definite evidence that the nature of the agreement is such that freedom to obtain foreign quotations is denied to the users except in the case of *new colours*. Full support was given by previous Governments to the claim of the users that territorial restriction would constitute a serious menace to the future of their industries.

. . . although it has been stated that the Cartel Agreement does not comprise any selling price arrangements, it is found in practice that effective quotations for competitive materials cannot be obtained. It may be stated that in comparison with the Board of Trade Wholesale Commodity Index Figure of 102 (*Board of Trade Journal*, Sept., 1932), the index figure for dyestuffs is 200, an increase of 100 per cent over pre-war.¹

Whilst the dyeware makers, under the shelter of a Prohibition Act and an international cartel, have no difficulty in

¹ Forty-nine specific examples were given in an appendix. See Cmd. 4191, pages 15-16.

increasing their prices, the exporter of textile goods finds it impossible in competition with the world to obtain any better prices; in fact he has to cut prices. Considerable export trade has already been lost owing to prices being too high.

It is a strange anomaly that, whilst the Government have been successful in negotiating terms whereby Lancashire operatives have accepted less wages in order that British textile goods shall be competitive in the world's markets, at the same time the dyemakers by increasing their prices for a major raw material of the textile trade are off-setting the objects of the recent wage cuts.¹

To the industrialist, indeed, one of the chief attractions of international combines is that they promise him relief from foreign competition in his home market (and the same alluring prospect, of course, lies behind his demand for tariff protection). They also appeal to him as a means of eliminating ruinous competition in foreign markets. And the wider the interpretation given to the words "home market," the greater the attraction, as a rule. Thus, under the terms of the International Calcium Carbide Agreement, covering the majority of European producers, the French were able to obtain reservation of markets in France *and her colonies*, a special quota for Morocco, and a limited but ample general export quota. Also, in the Franco-German Potash Agreement it was stipulated that the "home market" of the French producers should include the French colonies, protectorates, and mandated territories.

How far, then, do international combines make protective tariffs unnecessary or ineffectual? Where the home market is entirely reserved to the local members of an extensive and powerful international combine, the effect is to transform a more or less partial obstacle—the import duties—into a complete barrier which all members of the international combine agree not to try to climb. The more comprehensive and closely-knit the international combine, the more complete and effective is the protection of the home industry. Moreover, if special circumstances arise

¹ *Ibid.*, pages 13-14.

which make it desirable, from the combine's point of view, that goods shall be imported into a certain "home" market, those goods *will* be imported, tariff or no tariff. Such temporary suspension of an agreement to "reserve" a certain home market might take place in order to break a strike of the combine's employees in that market. Thus, in the circumstances here outlined protective tariffs appear to be neither necessary nor effectual. Furthermore, a price-raising policy on the part of a national combine, even where a high protective tariff exists, will attract foreign competitors in increasing force the higher the combine raises its prices; so that the consumer can count upon this check, at least, to the worst excesses of the combine. But he cannot do so where the combine is international and comprehensive, for in such cases there are no foreign competitors worth mentioning. A potential buyer, dissatisfied with the prices quoted in his home market and seeking competitive quotations abroad, will perhaps receive a similar quotation or a higher one, or none at all; but not a lower one, since the foreign and home suppliers are all in the same combine. Another point is that a national combine, even when it is sheltered by a prohibitive tariff, is still liable to competition if foreign producers think it worth while to set up factories *inside* the tariff wall. But where an *international* combine exists, this form of industrial invasion is much less likely, especially if all the most widely-known and financially-powerful foreign producers are members of the same international combine.¹

The reservation of home markets, therefore, smacks strongly of high protectionism. But there are differences; for not only does reservation of the home market under an international agreement usually give to the home producers

¹ In *Canadian-American Industry: A Study of International Investment*, by Marshall, Southard, and Taylor, it is stated that at the end of 1934, over 1,350 firms in Canada were controlled by, or affiliated to, American firms. It is advantageous for American firms to work *inside* the British Empire tariff system and so gain the benefits of imperial preference for their exports to various parts of the British Empire.

more complete freedom from actual and threatened foreign competition than protective tariffs, but, unlike a protective duty, it is not a kind of local barricade erected under the influence of economic nationalism. It is, on the contrary, part of a larger scheme of economic internationalism. But, on the other hand, although international combines (and especially cartels) give more complete protection while they last, they are commonly less permanent than tariffs.

In the absence of much more information than is at present available it is impossible to reach definite conclusions regarding the effects of international combinations upon tariffs and tariff policies. The World Economic Conference of 1927 took a rather optimistic view of the part international combines might play in providing an antidote to the poison of excessive protectionism; but the Economic Consultative Committee of 1929 received representations to the effect that international combines "do not, as a rule, make for tariff reduction unless the parties they bring together are of approximately equivalent strength and are anxious to develop their strength by means of technical improvements rather than by customs protection. Experience has shown, it was argued, that the regulation of competition which results from industrial agreements does not invariably lead the parties to consent to tariff reductions, since combines are often concluded on the basis of the commercial possibilities resulting from the protection afforded by the existing tariffs, and a change of tariffs modifying these possibilities would be regarded as jeopardizing the combine itself." Moreover, if the combine brings together parties of unequal competitive powers, but is not comprehensive enough to exclude all serious competition, the various members of the combine will be interested in maintaining such protective duties as will preserve their home markets. Therefore, such stability as may be achieved rests upon (a) the maintenance of international combination, and (b) the maintenance of certain protective tariff levels in the different countries concerned: two shaky piers, either of

which is liable to be severely strained by the passing gales of political and economic controversy, especially in periods of upheaval, when tariff policies, rates, and classifications often go into the melting pot. Since many international agreements are made for limited periods only, the existing extent of customs protection becomes a highly important factor every time negotiations for renewal of agreements are entered into. "In some cases, indeed, the efforts of producers to obtain increased protection in their own country are redoubled as soon as the creation or renewal of an international cartel arises."¹ Moreover, where the element of impermanency is present in a high degree in the arrangements of any international combine, all the members, and especially the weaker ones, will wish to retain tariff protection in case, at any time, the combine should break up. And it must be remembered that producers may be interested in the customs duties upon not merely one article, but upon a whole range of articles. It is probably easier to *retain* protective duties than to *regain* them once they have been relinquished.

Many international sales agreements are themselves the result or outcome of tariffs, and depend for their continuance upon the retention of existing obstacles to free trade. Thus not only tariffs, but the international cartel agreements which arise out of them, impede progress towards that international division of labour which is the free trader's ideal. It follows, of course, that the removal or substantial reduction of tariffs would greatly weaken, perhaps to the point of dissolution, many international cartels. But this is not very likely to happen, for as we well know "tariffs tend to stick." It is thus quite clear that the disappearance of tariffs before the advance of international combines is hardly to be expected.² The most that can be

¹ League of Nations *General Report on the Economic Aspects of International Industrial Agreements* (1931), page 31.

² In one direction, indeed, a contrary effect may be produced. The disparity between prices of manufactured goods and prices of agricultural produce, in favour of the former, is not infrequently

looked for is the stabilization of customs duties as the result of the evolution of more permanent international combines. In a predominantly free-trade world, international combines having agreements for the reservation of home markets and the division of the rest of the world into export sales territories would be open to the criticism that they were the only great obstacles to world division of labour and the complete realization of its undoubted benefits. But in the highly protectionist world of to-day the situation is not so simple. It may be urged, for example, that international combines prevent dumping and check those continual demands for more and more protection which always become clamorous when States pander to the demand of particular "interests." There is, certainly, a fundamental general antipathy between international cartels and *alterations* in tariffs; for the introduction of more orderly production and marketing, and more stable prices, which are among their chief objects, are jeopardized, together with the very existence of the cartels themselves, by the chop and change of tariff policies.

Even if the home market is not "reserved," an international combine does not "blanket" the tariff, but must work within it. The existing import duties form, as it were, the framework into which its arrangements (e.g. as to prices and quotas) must be made to fit.¹ Increase, attributed by farmers in various countries to the existence of national and international combines in industry, and their absence in agriculture: and this opinion prompts the farmers to demand tariff protection by way of compensation.

¹ The standard prices established by the European Aluminium Cartel are applicable to all consumers in every country, irrespective of transport costs. In countries where aluminium is dutiable, the duty is added to the standard price and is thus shifted to the consumers if no aluminium is produced there. But in aluminium-producing countries any imported aluminium is sold at the standard price, even though import duty has been paid on it. "Thus in France the price is the same as the standard price, and not the standard price plus all or part of the customs duty. The customs duty does not involve any charge on the consumer, but is none the less of importance from the standpoint of the producer, in that it protects his home market."—League of Nations *Review of the Economic Aspects of Several International Industrial Agreements* (1930), pages 26–7.

reduction, or abolition of the duties will set the combine the task of revising its arrangements, with, possibly, all the internal perils attendant upon the rearrangement of quotas.

Thus it becomes clear that whether home markets are reserved or not, national actions, such as changes in protective policy and tariff rates, may throw the arrangements of international combines into disorder. This will always be inconvenient; it may or may not prove very serious. If a combine is but loosely knit, or if there is a good deal of friction between its constituent groups or units, the disorder may be sufficient to precipitate its dissolution. The International Steel Agreement of 1926 actually provided that if Germany increased the import duties on steel, any signatory could denounce the cartel by giving three months' notice; and it might be terminated in a similar way if any government concerned raised the objection that any other government was discriminating against its general imports, unless the question was covered by a commercial treaty.¹ Turning from steel to copper, we find that in the spring of 1932, "in order to counteract the gradual shift of production from the high-cost producers in the United States to the low-cost concerns elsewhere, the United States Government imposed an import duty on the metal (copper) of 4 cents per lb. The effect was to throw the world's copper industry completely out of gear. On the one hand, producers outside the United States, deprived of a large potential demand, were faced with the necessity of reducing production further; and on the other hand, as was to be expected, the imposition of the duty led to the disruption of Copper Exporters, Inc. Four of the largest members, the International Nickel Co. of Canada, the Chile Copper Co., the Cerro di Pasco Corporation, and Katanga, have already announced their decision to withdraw from the cartel."² Not many months later we find the copper

¹ Knight, Barnes and Flugel, *Economic History of Europe* (1927), page 669. See also *post*, Appendix I, pages 247-259.

² *Economist*, 9th July, 1932, pages 60-61.

mining interests attempting to reconstruct an international cartel, only to be met by such difficulties as are outlined below.

The Copper Conference. The failure of the conference of copper producers in New York was not unexpected. A statement has been issued by the Roan Antelope Copper Mines rebutting the allegations that the sole responsibility for the breakdown of the Conference rested with the company. Roan Antelope began producing in the summer of 1931. In November, 1931, and in March, 1932, a group of leading copper producers of the world met to consider the question of over-production and accumulation of stocks. The proportions between the operating quotas of the participants of these conferences are now obsolete, and Roan Antelope directors claimed that for 1933 their company should be accorded treatment no less favourable than that accorded to other producers and to its neighbour in the same Rhodesian field. It claimed that the imposition of the American copper tariff in June, 1932, had brought about conditions that have subjected international co-operation to a severe strain. During the past few months American mines have exported large quantities of copper to Europe in competition with the producers who are barred from the American market. Further, American companies owning mines both within and without the United States have demanded the right to transfer to their foreign subsidiaries part of the operating quotas allotted to their United States mines. Such practices, the Roan Antelope directors claim, preclude the possibility of effective international co-operation.¹

In a somewhat similar way Great Britain's imposition of a tariff on lead in March, 1932, resulted in the disruption of the lead cartel.²

The break-up of the International Tube Cartel in the spring of 1935 was closely related to the Saar question. The cartel was divided into two parts: (1) the portion connected with the continental works in Germany, France, Belgium, Luxemburg, Poland, Czechoslovakia, Hungary,

¹ *Economist*, 17th December, 1932, page 1153.

² *Economist*, 23rd July, 1932, page 164; *Manchester Guardian Commercial*, 29th July, 1933, page 87.

and the Saar, and (2) the part which aimed at the division of export business and an understanding with the producers of Great Britain, the United States, Canada, and Japan. The two works in the Saar—the Aciéries et Usines à Tubes de la Saar and the Tube works of the Homburger Eisenwerke A-G.—had belonged to the French cartel, the Comptoir Franco-Belge-Sarrois: but after the transfer of the Saar to Germany and the incorporation of the two works into the German economy, they demanded participation in the German market, since they could no longer send to France. The German members of the Tube Cartel demanded as compensation an increase of quota, but without success. This, with other difficulties, resulted in the dissolution of the cartel.

In the near future it may be found that instead of international cartels, industrialists will come more and more to prefer international concerns, largely because they are less likely to be thrown into confusion, and even destroyed, by tariff changes.

Having agreed as to their respective home markets, the members of international combines usually seek to come to an agreement regarding export markets or "non-reserved sales territories." As far back as the eighteen-eighties the great international combines in the explosives industry made agreements touching the allocation of export markets; and again, in 1897, "the American manufacturers of explosives and the German and British powder syndicates organized the so-called International Powder Trust. The different world markets were divided up and an understanding was reached regarding basic selling prices." This combine had also a common fund for the purpose of "protecting the interests" of its members against "outsiders." Italian and American sulphur producers formed a similar combine in 1906.¹ In 1905, the German Steel Tube Cartel entered into an arrangement with the American combine producing steel tubing, under which the Germans agreed not to supply the

¹ *Journal of Political Economy*, October, 1920, page 662.

markets of the United States, Canada, and Mexico. Not many years ago (1926) the British gas mantle manufacturers made an agreement with the Germans and certain associated manufacturers in other countries, whereby the German manufacturers and their associated undertakings promised not to sell gas mantles in the United Kingdom for a period of five years, while the British producers agreed not to export to the European Continent and the United States during the same period. Other stipulations applied to certain other markets.¹

The method of allocating output or export quotas, or both, to each of the members of an international combine is very generally adopted, and it is as important as it is troublesome. The arrangement of quotas is a difficult and contentious business in the initial or formation stages, and the most common general cause of friction and dissension within international combines afterwards. Professor Jenks reminds us that in 1899 "Chairman" Gates of the American Steel and Wire Company testified before the United States Industrial Commission that he had had several meetings with the Americans' strongest competitors—the German wire manufacturers—who were already combined on a national scale, to discuss the possibility of forming an international combine. "The plan suggested was for the two countries to divide the world's markets in accordance with a fixed percentage, and to agree upon an increase in price. The difference of opinion as to the percentage of the market which should be allowed to the Americans—Mr. Gates demanding 50, while the Germans were willing to grant at the outside not more than 45—and further differences of opinion regarding the increase in price—he being content with an increase of \$10 per ton, the Germans wishing to secure one of \$30—finally made him distrustful and resulted in the breaking off of the negotiations."²

¹ Balfour Committee on Industry and Trade, *Factors in Industrial and Commercial Efficiency* (1927), page 113.

² *The Trust Problem* (1907 Edn.), page 48.

The quota assigned to each national producer or group of producers may comprise the whole or part of the supplies taken by the home market, or the combine may fix export quotas only. But in either case the quota arrangements must be elastic, otherwise those who feel that they are losing rather than gaining by reason of their membership of the international combine, will soon break away. Hence "fines" and bonuses and periodical revisions of quotas are generally provided for in modern quota agreements. But not only is it usually necessary to adopt such devices, it is also necessary to *adapt* them carefully to the probable exigencies of the situation in the near future, so far as these can be estimated.

The fines or penalties for exceeding the quota must not be so light as to be, for all practical purposes, inoperative; nor so heavy as to amount to a virtual prohibition on excess production or export under any circumstances, for then the agreement would actually have very much less elasticity than it appeared to have on the face of it. Where, however, an international agreement gives the parties a right to exceed their respective quotas on payment of a moderate fine or penalty, without breaking the agreement, each member-plant will decide for itself whether the net extra economies likely to result from increasing output so as to exceed the quota will be greater than the penalties payable. Where the quota falls far short of the *optimum output capacity*¹ of any plant, it will probably pay to produce in excess of the quota; but usually there will be, at the same time, a strong feeling that the quota ought to be larger, so that the advantages of lower unit costs could be had *without* the necessity of paying a fee or penalty in order to gain access to them.

If an international agreement provides for the revision of quotas according to the trends of demand in national markets, each national group or party to the agreement has

¹ I.e. that scale of production at which unit-costs will be reduced to a minimum.

a strong incentive to encourage and stimulate the consumption of its goods within its particular region, so long as its actual quota remains below its optimum output-capacity. And, similarly, if the allotment of quotas is based mainly upon the productive capacity of each member, each is prompted to enlarge its factories, or increase their number, in the hope that when the agreement comes up for revision its extra capacity will enable it to obtain a larger quota. An active policy of this kind would, sooner or later, wreck the combine. But, says a League of Nations report, "experience has shown that, when the majority of important cartels have come up for renewal, the firms which speculated on an increase in their means of production with a view to obtaining a higher quota have failed to achieve their end, and this salutary example has, to a large extent, prevented the repetition of such speculation."¹ Moreover, the longer the term of the international agreement, the less likelihood there is of such unwise inflation of productive capacity.

Another problem is presented by the probability that new producers may arise (a) in countries where the market is "reserved" to certain members or member-groups within an international combine; (b) in countries not so "reserved." The combine must consider what can be done to bring the newcomers into its ranks, and what revision of quotas will be thereby rendered necessary. Here, again, is another possible bone of contention; for one group's application for an increased quota because certain new producers had recently appeared upon the scene within its particular area, might be opposed by a different group on the grounds that these new producers should not have been allowed to arise at all.

Nearly all international combines encounter the problem of disciplinary arrangements. Several major questions are involved. For example, how can the combine best retain

¹ *General Report on the Economic Aspects of International Industrial Agreements* (1931), page 20.

the loyalty of its members? Are any sanctions (penalties) desirable? If so, what form shall they take? How far (if at all) can the combine rely upon state assistance—or must it seek to provide the whole of the disciplinary machinery it requires? One method of holding the parties together and applying a kind of sanction is to require all the members of the combine to deposit securities as earnest of their good faith and loyalty, with a provision that failure on the part of any member to fulfil his obligations shall cause forfeiture of the securities. The securities are lodged in the hands of certain trustees in a country where the laws will allow such a contract to be enforced. The twin international agreements made in May, 1936, between the majority of the Finnish, Scandinavian, and British manufacturers and merchants in the kraft paper and paper bag industry provide for a differential charge of £2 or more per ton in favour of members, and those breaking the agreements are liable to fines, or to expulsion from the cartel, which would, of course, at once make them liable to pay the higher scale of prices for their supplies.

An international combine may have its own arbitration court to settle disputes between members, and to deal with interpretation difficulties which are almost certain to arise in connection with the agreement. Also provision may be made for *independent* supervision and audit of production and sales records and accounts. The output and deliveries of the European Steel Cartel are audited by an independent Swiss company; and the Incandescent Lamp Cartel has made similar arrangements.

A few examples of actual quota arrangements may now be given.

The well-known International Rail Makers' Association arose out of the over-production which followed the close of the first fifty years of railway construction in Europe. First formed (as we have seen in Chapter I) in 1883, between the rail makers of Great Britain, Germany, and Belgium, it is among the oldest of international cartels. The original

quotas were Great Britain, 66 per cent, Germany, 27 per cent, Belgium, 7 per cent of total export trade; but these ratios did not give satisfaction all round, and they were soon afterwards revised to $63\frac{1}{2}$, 29, and $7\frac{1}{2}$ per cent respectively. Nevertheless, the new quotas were no more satisfactory than the old. Further negotiations showed that the British were determined not to give any more ground, and the cartel broke up in 1886. It was revived in 1904 for three years, and this time the French joined.¹ "Meanwhile the American Steel Rail Makers had combined and in the same year, 1904, they entered the International Rail Makers' Association, one of the conditions being that the British makers gave up the exclusive right which they had obtained under the original agreement to supply the requirements of Canada and Newfoundland. The British makers agreed that the Americans should participate in the orders from those two Dominions, and it is stated that as a result they took practically all the orders therefrom. Subsequently arrangements were made between the International Association and groups of makers in Spain (who were given the exclusive right to the Spanish market) and in Italy (the Association agreeing not to sell steel rails for the Italian home market and the Italian rail makers agreeing not to export)² . . . The German group, acting on behalf of the International Association, also entered into arrangements at various times with Austro-Hungarian makers for the mutual protection of the home market of each group and the division of orders for the Balkan States. Subsequently arrangements were made between the International Association and certain Russian makers whereby the latter were allotted a fixed quantity of steel rail export business on certain conditions. The International Association was renewed for five years in 1907, and

¹ *Report of the Committee on Trusts* (Cmd. 9236, 1919), page 40; Balfour Committee on Industry and Trade, *Survey of Metal Industries*, page 35. Cf. *Quarterly Journal of Economics*, February, 1917, page 267.

² This arrangement, which was subsequently modified, terminated in 1909.

in 1912 for three years to the end of June, 1915."¹ By that time the quotas had become—

Great Britain	.	.	33·63
U.S.A.	.	.	23·13
Germany	.	.	23·13
Belgium	.	.	11·11
France	.	.	9·0

The expansion of the steel rail industries of other countries was gradually forcing the British makers to accept a diminishing proportion of world export trade, and also a diminished quantity. The British makers' average annual orders for all markets are given by the Committee on Trusts as 917,000 tons in 1901-5, and 646,000 in 1911-14; and their average annual orders for countries other than the United Kingdom and British possessions fell from 257,000 tons in 1901-5, to 56,000 tons in 1911-14. Thus, British rail makers found themselves "restricted more and more to the British Dominion and Colonial markets . . . and a few others, of which the Argentine was the most important."²

In view of this continuous change in the relative productive capacities of the older and newer national groups, and of their wide and divergent interests, it is remarkable that the International Steel Rail Cartel held together as well as it did, and that it did not give rise to more friction; especially as there was no machinery for the enforcement of its regulations. There were, indeed, from time to time, certain instances in which the spirit of the agreement was not observed.³

After the War, although competition in the steel rail trade was much intensified, the cartel was not resurrected until 1926. The Americans did not rejoin, and the quotas became—

	<i>Ratio to 104</i>	<i>Quota: Tons</i>
Great Britain . . .	43·0	430,000
France . . .	19·5	195,000
Germany . . .	19·5	195,000
Belgium . . .	11·0	110,000
Luxemburg . . .	7·0	70,000
Czechoslovakia . . .	4·0	40,000
	<u>104·0</u>	

¹ *Report of Committee on Trusts*, page 41.

² *Survey of Metal Industries*, page 70.

³ *Report of Committee on Trusts*, page 41.

Special agreements also exist between the cartel and Austrian, Hungarian, Polish, Italian, and Yugoslav producers. On 1st April, 1929, a new six-years agreement was made, which brought in the chief rail makers of the U.S.A., grouped together in the Steel Export Association, and involved the splitting of the British quota with the Americans—

Great Britain .	24.5 per cent
United States .	18.5 „ „

The League of Nations *Review of the Economic Aspects of Several International Industrial Agreements* (1930) describes it as a "gentlemen's agreement" to regulate the export sales of rails weighing 36 lb. or more per yard,¹ fish plates, chairs, and "continuous joints." The British and French members reserve their home and colonial markets, but not their mandated territories. A committee in London centralizes all orders and allocates them among the national groups. The subdivision of the contracts allotted to the groups is carried out in Germany and France by the respective national cartels; in Belgium and Luxemburg by the largest producers.² After this allocation the customer and the undertaking to which the order has gone have direct dealings, and the former is nominally free to withdraw his order and place it elsewhere if he does not approve of the firm to which it has been allotted; but other members of the cartel will not take the order except at a higher price, so that financial sacrifice is the condition of the exercise of a customer's preference. A committee of directors, consisting of delegates from the various national groups, meets quarterly to fix minimum prices and to transact business not dealt with by the London committee.

The International Aniline Convention, to which German and British makers were parties, furnishes us with a record of an interesting experiment. Each member of the cartel received a quota based upon average total deliveries of

¹ Excepting grooved rails for tramways and cranes.

² Liefmann, *Cartels, Concerns, and Trusts* (1932), page 155.

aniline oil over a given three-year period. The prices to be charged by producers selling to consumers were fixed for each country, and sales to dealers were prohibited by the convention. If any of the members delivered more than their quotas no money fine was imposed, but they had to take from those who had delivered less than their quotas, at the latter's works, "the quantity of aniline oil which they had over-delivered, at a price equivalent to that which they had received." Moreover, "no member could enter into a sale contract for a period for more than twelve months; there was a committee to watch the progress of new companies and to take steps to prevent them coming into competition; and instances occurred where the members of the Convention had to share in the loss incurred in delivering aniline oil to meet the competition of such companies."¹

The International Tube Cartel agreement allowed an excess of 5 per cent above the quota without penalty. For excess production exceeding 5 per cent, but not exceeding 10 per cent, the fine was £1 per ton: and exceeding 10 per cent £5 per ton. Also, by a levy of 1s. per ton on output a "reserve fund" was to be accumulated, "evidently to be used to fight outsiders."²

The year 1916 saw the negotiation of an agreement between leading quebracho (tanning) extract producers in Argentina and Paraguay for output limitation and centralized selling. In 1922 the selling combination dissolved; but four years later a new selling organization was set up. Production and prices are controlled by a committee of five representatives of the member companies. The maximum production quota for each member is fixed on the basis of its largest monthly production in 1923, 1924, and 1925, averaged and multiplied by 12. More than twenty firms are in this combine, which controls about 90 per cent of total world output. The largest member company, Forestal

¹ *Report of Committee on Trusts*, page 41.

² Liefmann, *Cartels, Concerns and Trusts*, page 156.

Land, Timber, and Railways Co.,¹ acts as selling agent for the whole combine.

The European Mercury Consortium gave a sales quota of approximately 60 per cent to the Spanish producers and approximately 40 per cent to the Italians, excluding the respective home markets, which were reserved. Spain and Italy were represented equally upon the controlling committee, the chair being taken in alternate years by a Spaniard and an Italian. The central sales distribution office was at Lausanne.

The International Steel Agreement is said by M. Herriot to be "a cartel of production, not of price," its primary object being the restriction and regulation of the output of ingot steel. "Each syndicate or group belonging to it may retain any common bureaux it may have set up. There has simply been established a common fund, to which each of the undertakings in the cartel is obliged to contribute. Each undertaking which has not exhausted its share receives compensation in cash; a payment is due from those who exceed their ration. . . . The supreme authority of the cartel is the general assembly, which fixes every three

¹ The Forestal Land, Timber and Railways Co., Ltd., was formed in 1906 with a share capital of £1,000,000 to acquire the business of *Compania Forestal del Chaco*. In 1913 it acquired certain properties and other assets from the *Santa Fé Land Co., Ltd.* and in 1914 it purchased certain properties of the *New York Tanning Extract Company* and of the *Argentine Quebracho Company*. As from the 1st January, 1931, the company sold its assets and business in Argentina to *La Forestal Argentina, S.A.*, the consideration being £1,000,000 6 per cent ten-year Debentures, £2,400,000 4 per cent fifteen-year Debentures, and £4,188,787 Fully Paid Ordinary Shares at par of that company. The main objects of this sale were to minimize the effects of double taxation and to facilitate the rationalization of the quebracho industry. The scheme provided that the company should act as distributors of the Argentine Company's products. The Forestal Company was formerly engaged in the manufacture of quebracho and mimosa tanning extract, but its business is now that of a trading and holding company, whose income is chiefly derived from dividends received from subsidiary companies. It now holds all the issued capital of *Calder and Mersey Extract Co., Ltd.*, and *Natal Tanning Extract Co., Ltd.*, which in turn controls *Alfredia Wattle Co., Ltd.* Other subsidiaries are *St. Helens Holdings, Ltd.*, *H. Renner & Co., A.-G. (Hamburg)*, and *Forestal Provident Investment Trust Co., Ltd.*

months the total ration by a majority of three-quarters of the votes."¹ The quotas were worked out by coefficients based upon production and estimated demand, and voting strength in the directing committee of four representatives of Germany, France, Belgium, and Luxemburg, was in proportion to these quotas. Permission to exchange quotas could not be given except to an undertaking in one country owning at least 40 per cent of the stock of an undertaking in another country.² "The original basis of participation was the production of each country in the first quarter of 1926, but special consideration was given to Belgium, whose output had been affected by a strike during that period. On the basis of an annual production of 25,287,000 metric tons, the participations were as follows—

	<i>Metric tons</i>	<i>Per cent</i>
Germany . . .	10,227,000	40.45
Belgium . . .	3,180,000	12.57
France . . .	8,066,000	31.89
Luxemburg . . .	2,160,000	8.55
Saar . . .	1,654,000	6.54
Total . . .	<u>25,287,000</u>	<u>100.00</u>

It was provided that, as the aggregate production agreed upon increased, and until the basic figure was 4,000,000 tons above the original basis shown, Germany's share was to increase in greater proportion. When the basis figure reached 29,287,000 tons the percentages of the different countries were to be: Germany, 43.176; Belgium, 11.560; France, 31.181; Luxemburg, 8.301; and Saar, 5.782. When once this output had been reached the percentages were not again to be varied except by later agreement, even if the basis production were diminished."³ The expedient of quarterly quotas was designed to impart elasticity and so to avoid the dangers which always lurk in a system of rigid

¹ E. Herriot, *The United States of Europe*, page 142.

² Knight, Barnes and Flugel, *Economic History of Europe*, page 668; see also *post*, Appendix I, page 250.

³ *Survey of Metal Industries*, page 81.

quotas. Each member of the combine agreed to pay into a common fund, as earnest of its loyalty, one dollar per ton of steel produced. The fine for exceeding the quota allotted was four dollars per ton of the excess; and producers whose output fell short of the quota received a "compensation" of two dollars per ton of their deficit. "The maximum deficiency upon which compensation is payable is 10 per cent of the quota, but if a deficiency continues in successive quarters, the percentage upon which compensation is paid diminishes" by 2 per cent for each successive quarter. "At the close of each half-year the common fund is liquidated. After deducting general expenses, the one dollar per ton flat rate contribution is divided in proportion to actual production, while any balance accruing from the payment of fines is divided in proportion to quotas."¹ Other features of this international agreement are (a) general supervision by a body of trustees, and (b) a provision that all disputes are to be referred to arbitration.

In the first three months the German industry passed its quota and had to pay a heavy fine; while the French failed to reach theirs and received, in consequence, a cash compensation of £674,000. In the quarter April-June, 1927, all quotas were exceeded except the French. The figures were—

	<i>Quota</i>	<i>Actual Production</i>	<i>Difference between Quota and Actual Production</i>	
	(thousands of tons)		+	-
Germany . . .	3,161	3,995	834	—
France . . .	2,283	2,065	—	218
Belgium . . .	846	896	50	—
Luxemburg . . .	608	616	8	—
Saar . . .	423	476	53	—
Totals .	7,321	8,048	945	218

¹ *Ibid.*, page 82. Cf. M. S. Birkett in *Statistical Journal*, 1930, pages 362-5.

The Germans felt strongly that these results justified some revision of the French and German quotas; and, failing this, the end of the cartel seemed imminent. But the dangers of dissolution and subsequent competition weighed even more heavily in the scale than discontent with the quotas, and so the cartel was preserved. Again, in 1930, the difficulties of working the agreement nearly caused a break-up, but this was arrested by the prompt introduction of certain modifications. Even so, the cartel certainly cannot be regarded as an unqualified success. It seems clear that the Germans, in their eagerness to reap the full fruits of national combination by coming to an agreement with their principal European competitors, got the worst of the deal, and accepted a quota quite inadequate relatively to their productive capacity. Certain German critics asserted that in effect the French producers and exporters received a very helpful subsidy from the German producers, in spite of the fact that under the agreement the French were able to work very much nearer to full capacity than the Germans. Subsequent reductions of the penalties payable by the Germans upon their excess production (from four dollars to one dollar per ton) have not really gone to the root of the trouble. On the other hand, the cartel has checked the dumping of steel into Germany by France, Belgium, and Luxemburg, and a special supplementary agreement, limiting the import into Germany of "semis" and finished rolled products from France and Luxemburg, has further reduced foreign competition in the German market. Moreover, the "general position of the cartel has been immensely strengthened by the formation of international organizations to deal with semis, sections, bars, heavy plates, and hoops."¹

It is an interesting fact that during the negotiations which resulted in the formation of these subsidiary organizations, the French negotiators argued that the *de jure* stabilization of French currency in 1928 adversely affected French

¹ M. S. Birkett, *op. cit.*, page 365.

exports, and therefore the period January, 1928, to October, 1929, chosen as the basic period for quota purposes, was unfavourable to French producers. Consequently, they demanded and obtained preferential treatment with regard to the fixing of the French quotas.¹ In the spring of 1933 a revised allocation of export quotas was arrived at by the International Steel Cartel, the respective shares being—Belgium, 29 per cent, Germany, 28 per cent, Luxemburg, 22 per cent, and France, 21 per cent.

Until 1st May, 1935, this cartel included representatives of all the principal steel-producing countries of Europe except Great Britain. The main stumbling block to British participation was the size of the quota which the Continental producers were prepared to allot to British producers. Eventually this difficulty was overcome, as we have seen (Chapter III), by tariff-bargaining, and the British steel producers joined the International Steel Cartel on advantageous terms for a period of five years from 8th August, 1935; subject to the right of either side to terminate the agreement on 7th August, 1938, by giving six months' notice. The official report reads—

In order to implement the agreement, a system of licensing was introduced on the 4th November, 1936, whereby iron and steel products of all descriptions covered by the agreement are admitted at a reduced rate of duty when accompanied by a valid quota certificate and certificate of origin as prescribed by the Import Duties (Iron and Steel) Regulations, 1936 (S.R. and O. No. 1081), made by the Board of Trade under Section 6 of the Finance Act, 1936. The reduced rate was at first fixed at 20 per cent but on the 3rd March, 1937, it was lowered to 10 per cent.

Owing to the exceptional conditions obtaining at the time the licensing scheme was introduced by reason of delayed deliveries under the agreement and the heavy demand for billets which could not be met from this country, it was found desirable in respect of the first two quota periods, which ran from the 4th November, 1936, to 31st March, 1937, to fix the quota in respect of imports of the

¹ *Ibid.*, page 352.

heavier steel products from the Cartel countries at a higher figure than provided for in the agreement. The quotas for wire and wire products have been fixed up to the end of 1937 on a basis strictly proportional to the 20,950 tons stipulated in the agreement.

For countries not coming within the scope of the agreement, quotas have been fixed on the basis of 100 per cent of the imports from those countries during the year 1934.

.

In addition to the main agreement made by the British Iron and Steel Federation, it should be mentioned that various sections of the industry are parties to international cartels of more limited scope. The tinplate industry, for example, belongs to the International Tinplate Cartel, and it is understood that this Cartel has been successful in promoting the sales of tinplate in a more orderly manner and has resulted in a larger margin of profit to the home industry in the export trade.¹

The international tinplate agreement was made for a period of three years from June, 1934, the original participating countries being the United Kingdom, United States, Germany, France, and the Saar. Since the beginning of 1935 Italy has also been brought within the scope of its operation. Its two main objects are the regulation of distribution by quotas and the improvement of the export price level. Of the aggregate datum export figure adopted for the purposes of the scheme Italy, France, and the Saar were given fixed quantities, while Germany's proportion was fixed at 16 per cent. The balance was divided between Great Britain and the United States in the proportions respectively of 70 per cent and 30 per cent. In actual operation the scheme secured for Great Britain about 50·8 per cent of the estimated world export requirements, the United States 21·8 per cent, Germany 16 per cent, Italy nearly 5 per cent, France 4·5 per cent, and the Saar 1·9 per cent. The quotas allocated to France, the Saar, and

¹ *Report of the Import Duties Advisory Committee on the Present Position and Future Development of the Iron and Steel Industry* (Cmd. 5507, 1937), page 21.

Italy in 1935-36 and in 1936-37 were slightly increased, and corresponding reductions were made in the quotas of Great Britain, the United States, and Germany. The marketing and export arrangements are centralized in each of the participating countries, and price policy is determined by the International Tinplate Association. Administration of the scheme is in the hands of a Management Committee, representative of all the participating countries, and also of a London Committee which meets weekly.

The agreement put an end to intense competition, and prices rose, but the stabilization of shares in the export trade kept British works operating for many months at half capacity. During 1936 adjustments in the cartel's quota arrangements had to be made to meet the claim of Germany for a larger percentage share, and also to cope with the temporary internal difficulties of manufacturers in France and Italy. But world production and export of tinsplates were greater in 1936 than in 1935, and Great Britain's share of world export trade improved from 330,000 tons to 352,000 tons. Of these slightly increased exports British oversea markets (principally Canada, Australia, and New Zealand) absorbed 52.3 per cent, against 55.2 per cent in 1935, and 45 per cent in 1933.

In the autumn of 1936 the price-regulating provisions of the European Steel Cartel were extended to galvanized and other thin sheets. In the new cartel to control the export of galvanized sheets Great Britain was given the biggest quota, sharing with Belgium 90 per cent of the trade. In the new Black Sheet Cartel the British quota was fixed at 33½ per cent, that of Belgium at 23½ per cent, and of Germany also at 23½ per cent, with the balance of 20 per cent divided between the other members of the cartel.

The European Aluminium Agreement provides for the allocation of quotas to the members of the cartel. Each quota covers sales in the home market and export sales (except to North America). The quota applies to aluminium and aluminium alloys, but only the aluminium

content of the alloys is reckoned. Each producer reserves the right to give priority to his home market.

The wagon manufacturers of eight European countries made an agreement in April, 1930, with the object of avoiding competition in export markets. Export quotas were arranged as follows—

	<i>Per cent</i>		<i>Per cent</i>
Belgium . .	34·6	Czechoslovakia . .	6·9
Germany . .	28·8	Hungary . .	2·4
France . .	13·9	Austria . .	2·2
Italy . .	10·5	Switzerland . .	·7

The output quotas under the International Tin Agreement are based upon the figures of world production in 1929. During 1929, Malaya produced 69,366 tons; therefore this amount became its *basic* quota. But, in 1930 and 1931 (according to Mr. C. V. Stephens, Chairman of Malayan Tin Dredging, Ltd.), owing to new plant and to more efficient methods of working, the internal assessment figure of production in Malaya expanded by some 20,000 tons to approximately 90,000 tons.

Under the conditions of the scheme each country has to carry all expansion of production since 1929 within its basic quota. It has not proved a difficult matter outside of Malaya for signatory countries, with control of the industry in a few hands, to suspend all new production work and to confine their operations within the limits of their regulated tonnage under the quota plan. It has, however, been difficult in Malaya, where with well over 1,000 producers working under varying conditions, production has increased to a considerable extent. It therefore follows that the percentage of restriction imposed on the individual producer in Malaya has been heavier than in the other countries. This heavier restriction figure is simply the logical result of the expansion of internal production since 1929. It has been said in certain quarters that the acceptance of the 1929 figures of world production as a basis for the quota plan did not do justice to the position of Malaya as a progressive producer, also that a more favourable basis for Malaya would have resulted had the scheme been founded upon the 1930 figures of world production, with due allowance for the voluntary restriction

practised by Malayan producers during that year. In this opinion I concur, but it must be borne in mind that other important countries might have increased their production during 1930 had they deemed it policy to do so, and that the 1930 basis might not have proved acceptable to all the countries party to the plan. In such a comprehensive arrangement of regulation, covering as it does the five most important tin-producing countries of the world, many different and difficult factors have to be dealt with, and some little time must elapse before the full and beneficial working of the plan can make itself manifest.¹

In April-May, 1932, the International Tin Committee recommended further restriction, to be brought about by closing down all production in the participating countries from 1st June to 31st July, 1932; and, thereafter, restriction of output to 40 per cent of normal. This was done. Subsequently, as world consumption revived, the percentage was increased from time to time until in the middle of 1937 it stood at 110. Moreover, in January of that year the tin cartel was renewed for a further five years, with revised standard tonnages as follows—

	<i>Long tons</i>
Malaya	71,940
Dutch E. Indies	36,330
Bolivia	46,490
Nigeria	10,890
Siam	18,000
Belgian Congo	13,200
French Indo China	3,000

Although the International Tin Committee's power to watch the world situation and recommend revisions of quotas provides the scheme with a certain amount of essential elasticity, it does not remove grievances arising out of the fixation of standard tonnages. Thus, in 1937, it was obvious that restriction was falling heavily upon Malaya (whose output capacity had reached the neighbourhood of 100,000 long tons) and the Dutch East Indies, and not at all upon the other regions. Malaya and the Dutch East Indies are clearly under-assessed, while the rest are over-

¹ *The Mining World*, 19th December, 1931.

assessed, for towards the end of 1937 they were in fact only producing between 50 and 65 per cent of their standard quantities. Therefore, when, in December, 1937, the International Tin Committee fixed quotas for the first three months of 1938 at 70 per cent—a drastic cut from 110 per cent—they tried to soften the blow by making special provisions whereby Malaya and the Dutch East Indies were allowed to export at a rate of approximately 80 per cent. But even so, these two regions had to bear the brunt of the cut, since they alone were producing over 70 per cent of their standard tonnages.

The European Coke Cartel, which came into operation in April, 1937, regulates a trade of between 12,000,000 and 13,000,000 tons per annum. The agreement covers the quantities and prices of coke exports from Germany, Britain, Holland, Belgium, and Poland, and has two main objectives: (1) the elimination of price-cutting and (2) the sharing of available trade in export markets. The exports of the five countries during the twelve months ended March, 1936, were adopted as the basic figures for the purpose of the scheme. The following are the agreed initial basic percentages and the standard quantities of the participating countries—

	Basic percentage	Standard quantity Metric tons
Germany	48.43	5,605,353
United Kingdom	20.88	2,416,680
Netherlands	17.83	2,063,668
Belgium	9.66	1,118,061
Poland	3.20	370,372

The export quotas for the year 1937-38 were fixed at 15 per cent in excess of the standard quantities, having regard to the substantial current expansion of trade. A country exceeding its general quota will have to pay a penalty of 5s. a ton, and excess sales will be deducted from its quota

for the succeeding year, while breaches of minimum prices involve a penalty which is three times the amount by which the price received by the seller is less than the minimum, or 5s. a ton, whichever is the greater. Countries failing to sell their quota receive 5s. a ton compensation.

For the purposes of the scheme the principal *importing* countries have been divided into four groups, namely: (1) The United Kingdom, Eire, the United States, and Canada; (2) the Scandinavian and the other Baltic countries; (3) the Western and Central European countries; and (4) Spain, Portugal, and countries on the Mediterranean seaboard. In addition to the sharing of the available export trade within these markets the Convention provides for the enforcement of minimum prices. These may be fixed and varied with the support of 75 per cent of the votes cast by the members of the Management Committee. It is the intention of the Convention "to effect a continuous adjustment of prices to circumstances so as to ensure that the prices obtained shall be the most favourable prices which are for the time being obtainable without prejudicing the immediate or future development of the export coke industry." The central administrative body is the International Coke Association at Brussels. British coke exporters are represented by, and responsible to, the British Coke Export Sales Association, which has drawn up its own scheme for the control of the coke export trade of the United Kingdom.

The International Agreement to Regulate the Production of Export of Rubber (dated 7th May, 1934) is one of the most recent and important international documents dealing with raw materials. Rubber, like many other raw materials, began to fall in price long before the onset of the great depression in 1929-30. In the post-war depression of 1921 rubber was quoted at 9½d. or 10d. per lb.; in 1925 it touched 4s. 7d. (although the average for the year was only slightly above 2s. 11d.), but by 1928 it was back to the neighbourhood of 10d., and by 1932, in the midst of

the world-wide slump, the price of rubber actually touched 1½d. per lb. From this almost incredibly low point there was a slight recovery to 2½d.-2¾d. in 1933, which became more marked as the possibility of a new and improved international rubber restriction scheme passed through probability to certainty. By that time—the end of April, 1934—rubber had risen to 6d. per lb.

Between 1922 and 1928 the famous "Stevenson" rubber restriction scheme was tried, not without some initial and superficial success; but eventually it failed because (a) it adopted a very ambitious price-raising policy, (b) its quotas were based on *past* production, and (c) it applied only to the British Colonies—Malaya, the Straits Settlements, and Ceylon—and therefore enabled other producers, notably the Dutch, to benefit at the expense of the British. Encouraged by high prices, the non-restricting producers pressed every available pound of raw rubber on to the market and planted new trees as fast as possible,¹ while simultaneously the chief users of rubber—notably the American motor tyre manufacturers—increased their consumption of reclaimed rubber and decreased their consumption of new rubber.² The new (1934) scheme avoided the third of these pitfalls by including the rubber producers of India, Burma, the Dutch Indies, North Borneo, Sarawak, and Siam, as well as those of Malaya, the Straits Settlements, and Ceylon; and, like the second tin cartel, by enlisting the support of the governments of those territories in order to make the scheme as all-embracing as possible. Actually it embraces countries which in 1933 exported 838,500 tons, or 98.4 per cent of the world's exports of rubber. The rubber-producing areas not included are the Amazon Valley, other parts of Central and

¹ In 1922, 70 per cent of world exports of rubber came from Malaya and Ceylon: in 1927 only 52 per cent came from those countries.

² United States consumption of reclaimed rubber: 1924, 76,000 tons; 1925, 137,000 tons; 1926, 164,000 tons. It is estimated that by 1928 over one-third of all the rubber used in the U.S.A. was reclaimed rubber.

PRICES OF RUBBER (SMOKED SHEET) IN LONDON

				Average per lb.					Average per lb.
				s. d.					s. d.
1921	.	.	.	9½	1935	.	.	.	5½
1925	.	.	.	2 11	1936	March	.	.	7½
1926	.	.	.	1 11½		June	.	.	7
1927	.	.	.	1 6½		September	.	.	7½
1928	.	.	.	10½		December	.	.	8½
1929	.	.	.	10½	1937	March	.	.	11
1930	.	.	.	6		June	.	.	10½
1931	.	.	.	3		September	.	.	9
1932	.	.	.	2½					
1933	.	.	.	3½					
1934	January	.	.	4½					
	March	.	.	5					
	June	.	.	6½ ¹					
	September	.	.	7½					
	December	.	.	6½					

South America, the Philippine Islands, Papua, New Guinea, Fiji, and Samoa, and, in Africa, Liberia and the British, French, Belgian, and Portuguese colonies. The potential output of plantation rubber from these countries is under 20,000 tons per annum, and the exports of wild rubber in 1929, when the price averaged over 10d. per lb. were 25,900 tons. Doubtless there will be some increase in the production of these countries at the present price level, but there seems little danger that production in non-regulated countries can increase enough to wreck the present cartel.

Under the existing agreement (printed below, in Appendix VII) the scheme is to run for four and a half years from 1st June, 1934, under the control of an "International Rubber Regulation Committee," composed of delegations appointed by the respective governments. The delegation representing the Straits Settlements, Malaya, and Brunei is allowed four members; the Dutch Indies, three; Ceylon, two; and India (including Burma), French Indo-China, North Borneo, Sarawak, and Siam, one each. Each delegation votes as one unit, and is allowed one vote for every complete 1,000 tons of the current quota for the region it represents.

¹ New restriction scheme introduced from 1st June, 1934.

Exports of rubber from producing countries are limited to prescribed percentages of certain *basic quotas*. These basic or standard quotas, which were allotted on the basis of *potential* production (allowances being made for areas recently planted, but not yet in full production), are as follows—

	1934 Tons	1935 Tons	1936 Tons	1937 Tons	1938 Tons
Malaya	504,000	538,000	569,000	589,000	602,000
Netherlands Indies	352,000	400,000	443,000	467,000	485,000
Ceylon	77,500	79,000	80,000	81,000	82,500
India	6,850	8,250	9,000	9,000	9,250
Burma	5,150	6,750	8,000	9,000	9,250
State of N. Borneo	12,000	13,000	14,000	15,500	16,500
Sarawak	24,000	28,000	30,000	31,500	32,000
Siam	15,000	15,000	15,000	15,000	15,000

The percentage of the allotted quotas which the various countries may *export* is fixed from time to time by the International Rubber Regulation Committee. Siam is to be allowed an exceptional increase in production should it be necessary in view of her recent plantings; and French Indo-China is accorded special export facilities to France. In order to keep productive capacity within the limits of probable demand, further planting of rubber trees is prohibited, except for experimental purposes, and replanting is limited to the equivalent of 20 per cent of the existing planted area of any one holding. This is estimated to provide adequately for depreciation. Further, the export of planting material from territories within the scope of the agreement is prohibited in order to prevent the growth of "outside" production. Lastly representatives of rubber manufacturers in Europe and America may nominate a panel, "which may from time to time tender advice to the International Rubber Regulation Committee on such important subjects as stocks, exportable percentage and cognate matters which are deemed to affect the interests of rubber manufacturers."

On 5th May, 1934, the *Economist* pointed out that—

The success or failure of this latest attempt at replacing competition by monopoly, as in the case of other schemes, will depend entirely on the Committee's views of an "equitable price level." Mr. J. G. Hay, chairman of the Labu (F.M.S.) Rubber Company, Ltd., and credited with moderate views on the subject, said he thought 7d. to 8d. per lb. would be a "fair and equitable" price. On the other hand, *The Times* reports in its issue of 1st May, that many planters were of the opinion that a price between 9d. and 1s. per lb. may be necessary to achieve the object in view, namely to provide properly for depreciation and obsolescence, and to yield a moderate return on capital. Clearly, a section of the rubber-growing industry is already intoxicated with the wine of restriction, and may easily dominate moderate opinion. Since the average cost on efficiently managed estates is only about 2½d. per lb., a price of 6d. per lb. seems to provide an ample profit margin. Even a price of 6d. per lb. will probably balance demand and supply at a substantially lower level than a price of about 4d. per lb. at which many estates can make a reasonable profit. Further, if prices are raised too high, the production of reclaimed rubber, especially in the United States, will be enormously increased. . . . Moreover, the draft scheme assumes that it will be possible to control "native" production in the Dutch East Indies. . . . We can only hope that those in control of the scheme have learned their lesson from past experience and that our own Colonial Office will exercise stricter supervision than in the case of the tin monopoly.

The International Rubber Regulation Committee began with a moderate turn of the restriction screw. The proportion of the allotted quotas which the various countries might export was fixed at 100 per cent for June and July, 1934, 90 per cent for August and September, 80 per cent for October and November, and 70 per cent for December.

The most serious problem facing the cartel was the regulation of the production and exports of native rubber producers, particularly in the Dutch Indies. In Malaya every small native holding is surveyed and registered; the district land officer knows how much rubber each native

owns, can assess his production, and issue export permits similar to those issued to large estates. In Sumatra and Dutch Borneo, however, there are such vast areas of native rubber unsurveyed and unregistered, that to introduce a system of individual licences will entail a long period of preliminary work. The Government, therefore, kept exports of native rubber within the quota by means of a heavy export tax (about 3d. per lb. in 1934), pending the eventual introduction of a better system based upon individual assessments. The registration and assessment of these native holdings displaced the export tax method in January, 1937.

For the first quarter of 1935 the export quotas were raised from 70 to 75 per cent of the standard allowances for 1935, which, as we have seen, were higher than those for 1934, and this made an aggregate increase of 118,450 tons in the permissible exports from the countries under the scheme. This quota increase would not have been granted but for the pressure of the Dutch, who feared that the output of native rubber would get completely out of control if any appreciable rise of prices took place. Consumption was expanding. In 1933 the total consumption of rubber returned to the pre-slump level of 1929, and in 1934 consumption registered a further increase of approximately 120,000 tons, or nearly 16 per cent increase over the previous year. Yet stocks remained large and did not seem likely to diminish. Therefore the quota percentages were fixed at 70 for the second quarter of 1935, 65 for the third quarter, and 60 for the last quarter; and were loyally observed by all members of the cartel. The Government of the Dutch East Indies raised its export duty on native rubber and purchased for cancellation unused export licences in order to counteract the excess of native shipments over quota allowances. By the last quarter of 1935 stocks were clearly diminishing, and the price of rubber, which had fallen back a little in the summer, resumed its upward course. Permissible export quotas were raised in successive

steps from 60 per cent to 90 per cent (third quarter of 1937); but reviving consumption continued to reduce rubber stocks, and prices continued to rise until the spring of 1937, when the average price of rubber reached 11d. per lb. From that point, however, there was a sharp recession in demand and prices: buyers' fears of a rubber shortage were allayed, and in November, 1937, the price fell below 6½d. per lb. This revived producers' fears of a glut, and the International Rubber Regulation Committee reduced the export quota to 70 per cent for the first quarter of 1938, and to 60 per cent for the second quarter. The immediate result was a slight recovery of prices to the neighbourhood of 7¼-7½d. per lb.

The comparative completeness of the Rubber Cartel certainly constitutes a standing temptation to the International Rubber Regulation Committee to restrict exports drastically and so to force up prices to a high level. But it must be remembered that the British Government's support of the cartel is conditional upon its aiming at stability of prices and not encouraging inefficiency. So far the Committee have been content to try to stabilize the price round about a modest level, but they have not succeeded. Evidently, the sharp and persistent increase of demand and consumption during 1936-37 took the Committee by surprise; which suggests that human control of supplies, stocks, and export quotas sometimes calls for super-human foresight. Moreover, considerable divergence of opinion exists among rubber-growing interests upon the subject of a "reasonable" or "fair" price. Views are, of course, largely coloured by cost levels. To low-cost producers a steady price of 6d. or 7d. per lb. may appear reasonably high;¹ while to high-cost producers 1s. or 1s. 3d. may seem unreasonably low. Nobody can say whether the representations of the manufacturing consumers of rubber will always be able to overbear the opposing pressures exerted by the high-cost producers.

¹ Not a few estates can make profits when the price of rubber is only 4d. a lb.

CHAPTER VI

EFFECTS AND TENDENCIES

ALTHOUGH well-organized, comprehensive, and powerful international combines have much to offer to producers, they are almost universally regarded with suspicion by the members of the working classes, who look at them from two points of view—as wage-earners, and as ultimate consumers. Moreover, this attitude of suspicion, this fear of being exploited, this sense of helplessness before the sinister machinations of some industrial and commercial Colossus, is largely shared by the independent intermediate consumers, such as the smaller manufacturers. It is hoped, in this chapter, to place before the reader such facts and arguments as will enable him (a) to grapple more successfully with this admittedly knotty problem of the effects and tendencies of international combines; and (b) to form a provisional judgment upon the questions involved.

Although international combines are counted among the relatively recent developments in economic organization, they are nevertheless still essentially capitalistic, and profit-making is still their *raison d'être*. It follows, therefore, that they will pursue such policies as seem likely to pay them best, whether or not these happen to coincide with the best interests of consumers and wage-earners. On behalf of international combines it can be urged that they reduce the numbers of middlemen and the burden of their charges; that cross-freights and unnecessary payments of import taxes are eliminated; that they abolish dumping; that they make possible many "internal economies" such as follow from the reduction of the numbers of redundant patterns and varieties, and the exchange of technical and

commercial information; that sales propaganda costs less and is more effective, since all overlapping and purely competitive advertising is eliminated; that limited supplies of raw materials can be fairly divided so that high costs of raw materials are avoided. International agreements for interchange of patents and research results, if duly honoured in the observance, make for greater productive efficiency, and the rapid improvement of the quality of goods available to consumers. Also it is true that the simultaneous, unco-ordinated commencement of new agricultural and mining enterprises, the building of factories and furnaces by many independent producers in different countries, and the consequent glut due to over-rapid expansion of world productive capacity can be avoided where producers act in concert under international agreements. This plea is especially strong in view of the modern tendency for productive capacity to expand very rapidly in almost every major industry. Yet there may be no guarantee that the consumers and wage-earners will not be worse off after these economies and advantages have been realized by an international combine.

Foremost among the objects of international combines stands the displacement of competitive conditions by collective organization, and the exercise of greater influence or control over prices than can be exerted by any single firm or company, or any combine organized only upon a national scale. The method may be the regulation of output, with the object of raising prices or stabilizing them; or of raising or reducing them first and then stabilizing them at or about an agreed level; or it may take the form of an agreement to quote certain prices only for certain commodities or grades of commodities.¹ The price and output policy of an

¹ Where high-cost and low-cost producers are brought within the same combine, and the demand for the cartel's product is not highly inelastic, a conflict of interests occurs when price policy comes under discussion. High-cost producers, as a rule, advocate high prices even if reduced sales are the result, for expansion of output offers them no cost-economies, and, for them, greater profit margins must be

international combine may affect more than one commodity and more than one industry in various parts of the world, because the volume of output and sales of a main product will inevitably react upon the volume of output and the prices of by-products. The consumer naturally argues that combined and co-ordinated organization will yield economies, and, therefore, the combines' prices ought to be lower. But he has often been disappointed. For instance, the temptation to widen their profit-margins by exploiting a favourable market situation is oft-times too great for producers, whether they are combined nationally or internationally. And if they are combined internationally their temptations are likely to be greater.

The consumer's chief possible defences against the danger of exploitation by the combines are (a) the elasticity of his demand, and (b) the existence of a "fringe" of non-combined producers. But the strength of these defences varies enormously from one industry and set of circumstances to another. Consumers of certain commodities may have the benefit of both—a highly elastic demand, and an extensive body of producers ready to offer goods in competition with the combine; others may have the protection of neither. Where demand is elastic and unit costs do not increase as output is enlarged, a combine, whether national or international, will doubtless pursue a low-price policy in order to gain the advantages of producing on a very large scale for an expanding market. But where an international combine which is also virtually a monopolist pursues a policy of "reservation" of the home markets of its members, coupled with co-operative exploitation of all other markets, the outlook is indeed black for consumers, for no

sought through high prices. The low-cost producers, on the other hand, will usually lean towards lower prices and larger output, since the latter means, for them, substantial reductions in unit-costs. In such a conflict the position of the high-cost producers is weak, since dissolution of the cartel and the resumption of competition may be the prelude to their annihilation. It may, in the last resort, be better for them to remain in the cartel and try to sell their quotas to low-cost producers.

consumer is able to buy at world (competitive) prices, and nobody can refer to such world prices as a test of the combine's prices, since the only world prices in existence are those charged by the combine itself.¹ Where demand is inelastic, the temptation to snatch large monopoly gains is very great, particularly if the monopolists regard their position as impregnable, e.g. if they own all the essential patent rights. Moreover, even where demand is elastic, after a time the monopolists' efficiency, unstimulated by competition, may decline,² and although they may not try to raise prices, they may not strive to reduce them. They may slacken their efforts to introduce their products, through price reductions, to further strata of potential purchasers; and they may even fail to keep their productive equipment strictly up to date.

Although those in control of certain types of international combines, such as cartels to regulate output, may honestly pursue what they consider to be a fair and moderate policy as between producers and consumers, so that there is no discrimination between different groups of consumers living in different regions, and, "unless governments choose to complicate matters by tariffs and quotas, we do not witness the phenomenon of differences of prices unjustified by differences in costs of transport, etc.," yet they tend almost inevitably "to stereotype the conditions of production in favour of the

¹ "When a trust or cartel goes beyond national frontiers" (writes M. Oualid) "and takes the form of an international agreement whose schedule of prices and rates make allowance for the customs duties of each country as a means of concentrating national production; . . . when foreign producers undertake not to import in the areas reserved to each member of the cartel; . . . when a voluntary and contractual prohibition is thus added to the statutory barriers already in existence, then it may well be asked how the consumers as such are to be protected." (*Social Effects of International Industrial Agreements* [I.L.O., 1926; C.E.C.P. 94], page 16.)

² This, in the opinion of Messrs. Wallace and Edminster, seems to have been the case in the Chilean Nitrate and the German Potash industries. It is true, they say, that consumers had the advantage of price stability, but it was dearly bought. See Wallace and Edminster, *The International Control of Raw Materials* (1930), pages 44-51, 89-105.

high-cost producers," and this prevents the more efficient from displacing the less efficient.¹

Again, in times of trade depression and mounting stocks of commodities, proposals or plans deliberately to balance production and consumption by international agreements are peculiarly plausible and attractive to producers and investors, and (as we have seen in Chapter III) not without a strong power of appeal to governments. But caution prompts us to inquire what are the details and probable consequences of such proposals? Stripped down to essentials, an international agreement of this type is really an attempt to prevent or arrest the process of elimination of high-cost producers which would certainly take its course in the absence of agreement. If the scheme fails and the cartel collapses with huge stocks on hand, the severity of the depression will be increased. If the scheme succeeds, will the high-cost producers have been saved at the expense of the low-cost producers or at the consumers' expense? While it is true that the ruthless closing down of plants which will probably be required again within a very short time is uneconomical, it is also true that the ruthless closing down of obsolescent and redundant plants in the ordinary cut and thrust of competition is far more defensible economically than the purchase of such concerns by a combine, whether it be for the purpose of preserving them, or for the purpose of closing them down *after purchase* and concentrating productive capacity in the more efficient plants. To purchase an undertaking because you know it is on its last legs and will probably have to be scrapped, is the height of economic folly (except from the viewpoint of the shareholders in the doomed concern!), and leads at once to over-capitalization.

There is, of course, the possibility that, where natural conditions do not make it impossible, industrialists in countries not possessing industries of the kind controlled

¹ L. Robbins, *Economic Planning and International Order* (1937), page 136.

by the international combines, may take steps, with or without State encouragement and assistance, to set up such industries if they consider that the prices charged by the international combine are exorbitant, or if they consider it undesirable to be dependent upon supplies wholly or mainly controlled by an international combine. But the obstacles to the successful rise of these new industries may prove insuperable, even if State assistance is forthcoming. It is, indeed, a profound mistake to think that potential competitors are always on the *qui vive*, ready to spring upon the flanks of a combine immediately it begins to exploit the consumers. An international combine may, quite conceivably, control the principal supplies of essential raw materials; or by the acquisition of patents and by subsequent research work it may have gained a considerable technical lead against which would-be competitors will generally find it extremely difficult, if not impossible, to contend. Again, the economic and technical conditions of the industry may so imperatively demand production on a large scale that none but large undertakings, equipped and organized at least as efficiently as the combine, can hope to make headway against it. And even so, the hope is not certain to be realized, for it may be that a few existing units of *optimum size* are already producing all that consumers require. If this optimum size is large, a new entrant must produce on a similar scale in order to secure similar low costs of production; but in that case, the addition he will make to the aggregate output will be so great as to force market prices to fall heavily, probably to such an extent that neither he nor any other producer will make much profit. Indeed, some may have to face losses. Thus it becomes clear that powerful monopolistic combines will be seriously threatened by competition only (a) if the chances of successful competition and high profits are good, and not likely to be merely temporary; and (b) if adequate capital (plant, equipment, cash, etc.) can be brought together by the potential competitors in sufficiently large,

well-managed units, and without causing such a fall of prices as to eliminate profits; and (c) if the combine is not already in exclusive possession of some essential or essentials of the industry.

The "competition of substitutes" has also to be considered, especially as it is, on the whole, less likely to be hampered or suppressed by a combine than the more direct type of competition discussed above. In effect, of course, the offer of reasonably efficient substitutes at reasonable prices increases the elasticity of consumers' demand for the combine's product. The lower the price of the substitute, the greater is the likelihood that the combine will be forced to reduce its prices until the difference in price between its product and the substitute will be no more than the value of the difference between their relative efficiencies. International monopolistic combines of raw material producers are always dangerous to manufacturers, who are the intermediate consumers, and to the ultimate or final consumers of the finished products. But when a raw material can be produced in two or more *distinct* ways there is much less likelihood that *all* the processes will be successfully brought under the control of an international combine. Thus, as we have seen (Chapter III), nitrogenous fertilizers can be obtained on a commercial scale from three distinct sources; from deposits of natural nitrate, from manufactured synthetic nitrates, and from the by-products of the steel industry. A somewhat similar situation, it seems, will shortly exist in the rubber industry. Rubber supplies at present comprise, on the one hand, natural rubber (plantation grown and wild) and, on the other, supplies of "re-claimed" rubber. A third source—synthetic rubber—is now emerging. In 1932 it was reported from Russia that "The main departments of the Vorenezh Synthetic Rubber Factory No. 2 started operation at the end of September, and the first consignment of rubber consisting of more than one ton has already been produced there. This is the *second* synthetic rubber factory put in operation this year. The first, which

was opened at the end of July in Yaroslavl, is now working successfully. According to reports the rubber soles produced there have proved entirely satisfactory. Both factories, which are the only ones of their kind in the world, are equipped with up-to-date machinery. The Yaroslavl factory forms part of a rubber-asbestos combine, as in addition to synthetic rubber, asbestos products are also manufactured. A third synthetic rubber factory will shortly be opened in Yefremovsk, and the construction of the Kazan synthetic rubber works, which is to be completed and start operations in March of next year, is also proceeding. Work is to be started shortly on two other factories in Kremenchug and Krasnodar. It is anticipated that when these factories are completed the requirements of the Soviet automobile industry will be fully satisfied. These achievements are particularly noteworthy seeing that Professor Lebedev succeeded in obtaining a few grams of synthetic rubber for the first time in 1930, and the first experimental synthetic rubber factory was only established in Leningrad in 1931."¹ In response to the self-sufficiency "drive," which is part of the "defence" preparations of certain other European nations, further progress with the production of synthetic rubber has recently been made.

In view of the fact that by no means all international combines are in monopolistic positions, and because it is no easy task to gain control over a proportion of the *world* output of any commodity sufficiently large to carry with it monopolistic powers, it seems that, on the whole, consumers are, in fact, protected from exploitation more by the refusal of competition to disappear entirely, than by the recrudescence of competition if and when an international monopolistic combine begins to abuse its position and the consumers of its products. St. George is more likely to hold the Dragon in check if he can manage to remain in the saddle. If he once allows the Dragon to unhorse him, he may never be able to remount. Where a very large producer or group

¹ *Moscow Narodny Bank Monthly Review*, October, 1932, page 5.

of producers remains outside an international combine (as have many American groups in recent years) the combine cannot raise prices much above the competitive level without inviting competition from the independent producers. A State which by legislation keeps its nationals out of international combines may thus, indirectly, protect the interests of consumers, not only within its own borders, but in other countries as well. Obviously, the larger the productive capacity of the non-combine producers taken as a whole, the more powerful will be the check upon the international combine. But even if the fringe of independent producers is relatively small, their existence may exert a restraining influence upon the combine, if, "at a pinch," they are able to increase their output considerably. Old "marginal" mines, for instance, can often be made to yield much more than their normal output, *at a price*. The same restraining influence may be exerted if the independent producers can and will accumulate and hold stocks until they regard the price situation as favourable for their release; but this involves financial resources of no mean order; and some risk (perhaps not very great, unless a severe trade depression sets in suddenly) of losses in case prices decline, contrary to expectations.

The International Zinc Cartel, which was dissolved in 1929, but re-established in 1931, controlled over 85 per cent of *European* production; but it had always to bear in mind the United States producers, and their capacity to compete from behind their high tariff wall. Again, the strongly monopolistic European Mercury Consortium managed to maintain prices at a high level until June, 1931; i.e. for nearly two years in face of a deepening trade depression of extraordinary scope and severity. But as a result of this policy the proportion of the cartel's output to total world output fell from 88 per cent in 1927 to 59 per cent in 1931, while, at the same time, the cartel's stocks increased. Independent mines had increased their output, while consumers who were able to do so turned to substitutes. In the

end, prices collapsed, from £22 7s. 6d. per "flask" (or "pot" = 34½ kgm.) in May, 1931, to £9 10s. in August, 1932.¹

Yet another and even more striking illustration of many of the factors and principles set forth above is to be found in the copper industry. Ever since the rise of the electrical industry, copper has attracted the attentions of would-be monopolists, and in the nineteenth century various attempts were made to corner supplies. In the 1890's, for example, a great Paris copper syndicate "seemed for the time to control substantially the entire output of the world," but ended in a "most humiliating failure."² After the War, the formation of an international combine was proposed, chiefly by powerful American interests who thought that copper prices should be under American control seeing that the United States had become by far the largest producer and consumer of copper. Productive capacity, which was increased enormously during the War, largely by re-opening old workings or opening new, but low-quality, mines, could have been reduced by a reversal of policy after the War. But, as Mr. J. W. F. Rowe has shown, the American copper industry was comparatively highly organized, ownership was concentrated, and the big companies were owners of both high-cost and low-cost mines within the United States, while some of them also owned new low-cost mines in Chile and Peru. "If this had not been the case, many of the high-cost mines would probably have been forced into bankruptcy before 1926 . . . whereas in fact they simply added to the already excessive capacity; the big companies carried them on, for they were unwilling to write off their book values."³ Concentration of ownership opened the way for a restriction scheme, introduced ostensibly to eliminate marked fluctuations of prices and the profits of speculators, but actually designed to avoid closing the high-cost mines. Exploitation of the consumers for such a purpose was quite

¹ *Economist*, 3rd September, 1932, page 421.

² Jenks, *Trust Problem* (1907 Edn.), page 49.

³ Rowe, *Markets and Men* (1935), pages 188-9.

indefensible. The American copper magnates seem to have regarded the demand for copper as so inelastic that higher prices could easily be obtained by a strong combine. Moreover, it was clear that in the event of the decline of European output by reason of exhaustion of ore deposits, a combine which controlled the bulk of American supplies would undoubtedly be king of the copper castle, unless by that time African supplies were very large and not controlled by the combine. In October, 1926, thirty-two leading copper-producing undertakings—eighteen of which were American—became members of an international copper combine. The constituent companies belonged to four groups (*a*) the Anaconda Copper Mining Co., which controls the Rockefeller-Ryan group of companies, (*b*) the Kennecott Copper Corporation and the American Smelting and Refining Co.; i.e. the Morgan-Guggenheim group, which is closely allied to (*c*) the Phelps-Dodge-Nicholls group. There were also (*d*) the Chile Copper Co. and the Green Cananea Copper Co., which are controlled by Americans, although strictly they are not American companies. Among the completely non-American undertakings in the combine were the Rio Tinto Company and the Union Minière de Haut Katanga. The combine's chief objects were stated to be the regulation of trade in refined copper (chiefly electrolytic copper); the elimination of middlemen and their speculative activities; and the stabilization of copper prices. It aimed at the regulation of trade, but not directly at restriction of the output of its members. Through its headquarters in New York or its European central office in Brussels, it centralized sales, allocating orders to each member-undertaking in proportion to the quota assigned to it under the international agreement. But when consumption declined it was open to each member to decide whether to decrease production or accumulate stocks. This is important, for it was just "this freedom" which, a little later, gave rise to the combine's major troubles.

During 1927 and 1928 its conduct could not be seriously arraigned from the consumer's point of view. During 1928 consumption expanded in a most gratifying manner, and despite some increase from Katanga and South America, the United States production could be expanded by 100,000 tons, while stocks were worked down to a very low level . . . and by 1st January, 1929, price had been raised to over 16 cents (per lb.). This price level must be considered as highly remunerative to any reasonably well-conditioned concern, but it was not so high as to check buying, or to excite serious accusations of monopolistic extortion. Consumption, in fact, continued to expand rapidly and price to rise slowly, while mine output was freely increased, though naturally it took time to increase refined supplies.¹

In the middle of March, 1929, consumers of copper, knowing that supplies were very largely controlled by an international combine and that stocks had fallen very low indeed, were seized with grave misgivings about future supplies and began to buy in a rather panic-stricken manner. This movement put the combine to the test, for if stability of prices is honestly the object of any combine, it must not stabilize only when the price-trend is downwards. But the temptation to take full advantage of a rising market is always tremendously strong. In this instance it was too strong, and "Copper Exporters Incorporated² substantially increased its quotation."³ The considered opinion of three English economists (Messrs. Keynes, Rowe, and Schwartz) was that "the combine certainly mismanaged the affair, if stabilization, and not monopoly profits, was their true objective." Even after the New York stock market crash in September, 1929, "there was still no reduction in the combine's price, though it was now clear that the prospects for consumption had completely changed . . . It was, in fact, clear that the combine had become a mere

¹ Royal Economic Society *Memorandum No. 24* (1930), page 10.

² Copper Exporters Incorporated was formed under the provisions of the United States Webb-Pomerene Act of 1919, which permits American companies or associations formed for export purposes to combine with producers in other countries.

³ Royal Economic Society *Memorandum No. 17* (1929), page 8.

grasping monopoly, and that if stabilization in the accepted sense of the term had ever been its true objective, it was so no longer."¹

From May, 1929 to April, 1930, the combine price was fixed at 18 cents per lb., a level which stimulated the use of substitutes for copper and at the same time encouraged non-combine producers (e.g. in Northern Rhodesia, the Congo, and Canada) to make strenuous efforts to increase their outputs. "Many mines which had been idle for years and were not parties to the cartel recommenced operations, with the consequence that production was increased out of all reason."² Meantime the boom had dissolved rapidly into depression; output was expanding but demand was shrinking. Consumers began to buy "from hand to mouth in the belief that increasing stocks and reduced consumption especially in Europe, (would) compel producers to bring down their price." Consumers argued that since production costs are usually below 10 cents per lb., producers were not justified in maintaining an 18 cent price level.³ Users substituted aluminium for copper as far as possible, while the American customs smelters, "in open violation of the agreement, supplied large quantities of copper to London metal dealers with which the London metal exchange prepared a counter-attack on the cartel."⁴ After April, 1930, the combine had to abandon its attempt to "peg" copper prices,⁵ and Copper Exporters Inc. allowed members to dispose of copper to foreign buyers below the "official" price. Prices fell to 10 cents per lb. in December, 1930; to 7½ cents a year later. By the end of 1932 the price had fallen to between 4 and 5 cents per lb., and the copper cartel was dissolved.

The chief consequence of this copper cartel was the

¹ Royal Economic Society, *Memorandum No. 24*, page 10.

² League of Nations, *General Report on the Economic Aspects of International Industrial Agreements* (1931), page 24.

³ *Manchester Guardian Commercial*, 16th January, 1930.

⁴ *Economist*, 2nd November, 1935.

⁵ League of Nations Report, *The Course and Phases of the World Economic Depression* (1931), page 138.

unintentional, but exceedingly effective, impetus which its policy gave to the development of copper mining outside the United States. The increase of the Rhodesian output is most striking, for it rose from 5,600 metric tons in 1929 to 72,000 in 1932, 143,000 in 1934, and 146,000 in 1935.

From the end of 1930 to the beginning of 1934 world copper prices were low, with, on the whole, a downward trend.¹ In the early months of 1934 a turn of the tide seemed probable, but in fact it was delayed for about a year owing to government "new deal" action in the United States and "lack of co-operation among producers elsewhere." The United States Copper Code, which came into force in April, 1934, permitted producers to raise the domestic price of copper to 9 cents per lb. and forbade United States manufacturers to use (a) copper produced by non-members; (b) copper produced in excess of the sales quota; and (c) existing surplus stocks. As a result, markets outside the United States were overwhelmed by "non-Blue Eagle" copper. Copper exports from the United States rose from 124,800 short tons in 1933 to 262,360 short tons in 1934, and between the spring and autumn of 1934 the London "standard cash" quotation for copper fell from £34 to £26 per ton.

Now it often happens that when abundant production and keen competition have reduced the price of a commodity to a very low level, the producers abandon competition in favour of combination. Therefore it is not surprising that another international copper cartel has been formed, to operate from 1st June, 1935. On this occasion, however, the initiative has come not from America but from a Copper Shareholders' Association formed in London, and the chief members of the cartel are not the great American companies, but the three leading Northern Rhodesian low-cost producers—Rhokana, Roan Antelope, and Mufulira, the Belgian Union Minière de Haut Katanga, and the Chilean

¹ Copper: average London prices per long ton; 1929, £75 9s. 7d.; 1932, £31 14s. 8d.; 1933, £32 11s. 4d.; 1934, £30 6s. 5d.

companies. The international agreement was signed by producers representing over 75 per cent of copper output outside the United States. There is also a so-called "gentlemen's agreement" which provides for limitation of exports from the United States.

The new cartel began by restricting output to 70 per cent of agreed tonnages, thus raising the price of standard cash copper to £38-£39 per ton by the autumn of 1936. But thereafter a rush set in to buy commodities, and particularly copper and other metals, and the situation rapidly passed beyond the control of the cartel. Output quotas were raised five times between August and November, 1936, and stood at 105 per cent at the end of the year. But buying still continued and the rise of prices was scarcely checked. In January, 1937, restriction was suspended for the time being, but even so prices continued to rise until standard cash copper touched £78 per ton in March, 1937. Then followed a reaction to £47 per ton at the end of September. On 1st October restriction was revived by the cartel at a level of 105 per cent of basic tonnages. The price rose immediately to £50 per ton, but soon after, in spite of restriction, it relapsed to £44. In December, 1937, when organized restriction was revived, the price was down to £39.

The dissolution of the International Tube Cartel in March, 1935, was followed by intense competitive price-cutting in overseas markets. Two years later came a great revival of demand, due to rearmament and the "up-swing" of the trade cycle, accompanied by a rise of prices which was greatly accelerated by the rush to buy when the existence of a "gentlemen's agreement" was announced and the resuscitation of the Tube Cartel was thought to be imminent.¹ Again, it is on record that when the Polish rolled-wire manufacturers joined the International Rolled-wire Cartel in May, 1935, an immediate advance of prices was decided upon; while the formation of the European

¹ Cf. Cmd. 5507, 1937, page 22.

Timber Exporters' Convention, in the same year, helped to cause a sharp rise of prices in the timber market.

In face of these illustrations, what becomes of the familiar plea that international combines impart stability to prices?

In the first place it is clear enough that even a monopolistic international combine cannot stabilize prices if it pursues an unwise, unscientific policy, out of touch with the realities of the economic situation as a whole. To confuse fixity or rigidity with stability is a fundamental error. It is also a mistake to think that stabilization of prices means nothing more than preventing a fall. A true stabilization policy must aim at "ironing out" the peaks, as well as raising the valleys, of price fluctuations. These remarks apply *a fortiori* to international combines which do not control a high proportion of world output. Moreover, price control not buttressed by output control tends to encourage increases in the volume and velocity of production among the members of the combine and among non-combine producers (if any) if the price is fixed at anything like a generous level from the producers' viewpoint. For a time the combine may be able to hold prices to that level; but stocks will accumulate and, if new outlets cannot speedily be found, or if current world production cannot be curtailed, a glut accompanied by a collapse becomes highly probable, if not inevitable, sooner or later. Even an international combine cannot finance the holding of large and increasing stocks for an indefinite period.

On the other hand, if, as a result of output control, stocks are allowed to fall to a low level, any sudden increase of demand will cause a marked shortage of the commodity and soaring prices for the time being, owing to producers' inability to expand output at very short notice. The obvious preventive is the holding of "buffer stocks" by the controlling body, ready to meet emergencies. Cartelized producers, however, are not usually enamoured of this plan because of the expense of holding the stocks, and

because the chances of occasional "bursts" of high prices and abnormally high "windfall" profits are thereby practically eliminated.

Given a wise price and output policy, however, an international combine may well succeed in imparting greater stability to prices than would otherwise exist, so long as the combine itself is stable and likely to last. But, on the other hand, when a combine is seen or believed to be in danger of dissolution; or when negotiations for the formation of a combine, or its renewal, are afoot, increased instability of prices is generally the result. For example, it was announced in the Press during 1932 that the prospect of a settlement, which would prevent the break-up of the Chadbourne plan for the sugar industry, coupled with the probability of only a moderate European crop, had caused a sharp rise of sugar prices. Again, with regard to copper, *The Economist* of 17th December, 1932 (page 1173) announced that "the failure of the conference in New York resulted in a sharp downward movement in quotations on Monday. As even at the lower quotations buyers failed to respond, prices failed to improve on Tuesday and Wednesday." On 4th February 1933, the *Manchester Guardian Commercial* remarked upon the collapse of spelter prices in the following terms—

It is nearly six months since the price of spelter was as low as at the end of last week, when news that the Zinc Cartel had broken up brought a rush of selling orders and a general decline in confidence. At the time of writing efforts are being made to patch up some agreement so as to avoid any further collapse in values, but whether these will be successful is a little doubtful.¹

After the formation of the International Aluminium Cartel in 1906, the price of the metal rose from £100 a ton to nearly £200, and after the dissolution of the cartel in 1909, the price fell to £55 a ton.²

¹ A few months later (1933-34), talk of the possibility of regulating exports of rubber from producing countries repeatedly disturbed the rubber market.

² D. Warriner, *Combines and Rationalization in Germany* (1930), page 96.

We have seen that the existing international agreement between producers of aluminium does not provide for price fixation, but for the control of the sales of members on the basis of a quota allotted to each. This covers export sales as well as sales in the home market, but the agreement does not reserve certain markets to particular producers. All members of the cartel are at liberty to trade wherever they can and at such prices as they care to accept. In spite of the elasticity of the marketing provisions of the agreement, it appears that, on the whole, aluminium prices during the past decade have been not only more stable, but higher than they would have been had no cartel existed. It is true that they have been reduced occasionally, but it is almost certain that they have fallen less than would have been the case under unrestricted competitive production. Nevertheless, any price reductions, however moderate, stand in sharp contrast to the price policies of the Copper Cartel before 1931, and the Tin Cartel since that date.

Ignoring the chances of temporary and abnormal fluctuations, there are at least two reasons for thinking that some further reduction of aluminium prices is not improbable in the near future. Firstly, although the cartel comprises many important producers in Europe, and seems to have established an understanding with those of North America, there are some important concerns in Europe and elsewhere which are not members, and their numbers and output capacities are increasing. Russia, Japan, Sweden, Hungary, and British India are all actively setting up and developing aluminium industries of their own, outside the control of the cartel. Secondly, the German producers recently expressed a firm determination to increase their aluminium output (which was 27,500 tons in 1933), cartel or no cartel; and in 1934 the German quota was raised by the cartel to 55,000 metric tons per annum. This concession has been described as "almost freedom of production," and had it not been agreed to, there is little doubt that the Germans would have left the cartel. Almost

simultaneously, the chief British member of the cartel, the British Aluminium Co., Ltd., complained of intensified foreign competition in the British market, mainly from dumped and subsidized German aluminium. On the other hand, the legal enforcement, in Germany and Italy, of the use of aluminium in place of copper, tin, lead, and spelter for many purposes, will help to support aluminium prices, and to reduce the prices of the other metals.

The question of dumping is part of, or at least closely allied to, this question of price stability in relation to international combines. As the sphere of operations of an international combine expands geographically, dumping disappears, and the wide differences frequently seen between prices charged in the home market and the prices of goods dumped abroad, no longer exist to annoy buyers in the home market. Moreover, the disappearance of intermittent dumping removes one of the causes of sudden and quite unpredictable price fluctuations. On the other hand, buyers of the dumped goods lose the advantage of being able to secure these at very low prices, or other goods much reduced in price in competition with the dumped commodities. But if the dumping ceases suddenly, as it often does, buyers who have relied upon it may well find themselves faced with the prospect of much higher prices, if not, indeed, with a shortage of supplies.

An interesting and rather rare example of anti-cartel action by powerful industrial consumers has recently come to light. In 1927 the Swedish, Norwegian, and Finnish producers of mechanical pulp formed a cartel called the Mechanical Pulp Suppliers' Association, to restrict output and exports,¹ and in 1930 the producers of sulphite pulp in Northern and Central Europe agreed to adopt a similar course by forming the European Sulphite Pulp Association.² In April, 1937, it was reported that Bowater's Paper

¹ D. Warriner, *Combines and Rationalization in Germany* (1930), page 189.

² Ohlin, *The Course and Phases of the World Economic Depression* (1931) page 138.

Mills had purchased Scharin, Sons & Co. of Umea, the largest Swedish producers of mechanical pulp, and a most important member of the cartel.

The acquisition of this Swedish concern is regarded as a first and significant move by the big British newsprint manufacturing interests against the Pulp Cartel, which has played a prominent part in the sharp rise of newsprint prices. This cartel is the Mechanical Pulp Suppliers' Association, and it controls virtually the whole of Swedish, Norwegian, and Finnish exports of mechanical pulp. The share of the Scharin concern in the Swedish quota is about 33½ per cent. If, therefore, as there is very good reason to believe, Scharin, Sons & Co., when under British control, resign from the cartel, the power of that international organization will be seriously impaired. If such is the outcome of the Bowater deal there will be cause for considerable congratulation. The cartel had evidently planned to continue a restrictionist policy so as to increase further the prices of pulp and newsprint. Despite the considerable expansion in the demand for pulp, it had fixed the 1937 export quotas from the three countries involved at 1,755,000 metric tons of wet pulp, or approximately the same figure as that for 1936.¹

Let us now turn from the general problem of international combines and the consumers, to the more particular problem of the combines and the wage-earners, which to some extent overlaps into the general problem. Leaving aside the question of working conditions in the productive units (mines, factories, workshops, warehouses, etc.), owned by international combines, it appears that the wage-earners' gains or losses due to the rise and growth of the combines will mainly depend upon (a) the effects produced upon earnings through the volume and regularity of employment and the rates of wages; and (b) how far combine prices are above or below competitive level, and the extent to which wage-earners buy goods produced by international combines.²

¹ *News-Chronicle*, 14th April, 1937.

² In connection with combines, both national and international, operating in Germany, "according to inquiries conducted by the German Federal Statistical Office for the years 1927 and 1928, a working-class family with an annual budget of about 3,250 marks spends a proportion of approximately 7 per cent of it on goods

Many international combines are, of course, not comprehensive and powerful enough to dominate either the commodity or the labour markets in the countries in which they operate. But the workers employed by a very powerful and closely knit international combine might suffer (1) a progressive depression of their wages and standards of living; (2) unemployment due to rationalization energetically carried out throughout the various establishments owned by the international combine; (3) the destruction or crippling of their trade unions. Experience does not lead us to think that the first danger is *practically* very great. Frequently the brunt of a price-war falls upon the workpeople, because independent, competing employers, forced to reduce prices, generally seek to reduce their costs by reducing wages. They may or may not begin by cutting costs in other directions, but almost invariably wage-reductions will occupy a prominent place in the list of "economies" to be made. International combines tend to eliminate such competitive price cutting.

Again, the more completely foreign competition has been removed by international combination, the less effectively can the wages demands of the workpeople be met by the familiar argument that foreign competition, actual or potential, makes it impossible to pay more, or imperative to pay less, for fear of undercutting. On the whole, it seems that great combines usually pursue a somewhat more enlightened and generous policy in dealing with the remuneration of labour than the majority of smaller businesses. It may be that the workpeople pay for this to the extent to which they are consumers of the combines' products; but this disadvantage is hardly likely to cancel out the whole of the advantage, unless a very substantial part of *all* industrial production is controlled by international combines in one form or another. Such a situation may exist twenty or thirty years hence; it does not exist to-day.

subject to price-fixing agreements." (I.L.O. Study, *The Social Aspects of Rationalization* (1931), page 185.)

But what of the volume and regularity of employment? Since there is very little international mobility of labour, the international scope of the capitalists' organizations does not itself deprive workpeople of any freedom of choice of employment which otherwise they would have had. But the volume of employment may be diminished, and this indirectly limits freedom of choice. Unemployment will certainly result from restriction of output by an international combine; and it *may* follow upon improvements in organization and technique. The closing down of certain plants, the adoption of labour-saving appliances in others, the reduction of competitive selling and overlapping and so forth—all of which may be true industrial economy—will displace many workers and leave them high and dry.¹ Improvements in organization and technique may, of course, have this effect where international combines do not exist; but where they do, the changes are likely to be more rapid and extensive. On the other hand, if an international combine succeeds in replacing anarchical conditions by ordered production, and the reduction or elimination of economic gluts and crises, *the workers who remain in its employ* will suffer much less from under-employment and over-employment due to irregularities of production and marketing, than they did before the combine came upon the scene.

¹ Cf. I.L.O. Study; *The Social Aspects of Rationalization*, pages 255-7, 263-5. The fundamental cause of the increasing acuteness and stubbornness of unemployment is to be found in the fact that world productive capacity has expanded enormously, especially during the present century, while no *corresponding improvement* has been made in the system of wealth-distribution (or division of income). The whole economic system functions imperfectly, lop-sidedly, because the out-of-date distributive side continues to make the incomes of working-class men and women depend, not upon the great abundance and variety of products now made available by modern methods of production, but upon the success with which those people manage to supply a total demand for labour which we know to be shrinking daily. Under any really rational economic system the triumphs of science, technology, and organization would be made the foundations of plenty, ease and leisure; but with us they spell unemployment, loss of income and purchasing power, want and misery for many millions of people.

We now come to the third danger—the destruction or crippling of the trade unions. The solid, united front of the international combine, coupled with its more enlightened treatment of its employees, may undermine, rather than smash, the trade unions. Many workers may feel that it would be futile for their unions to try conclusions with such an all-powerful organization; and if, in addition, they think that the likelihood of serious conflict is growing less, they may begin to wonder whether, after all, they need pay trade union contributions? This line of argument is plausible but treacherous. It may be argued with as much, if not greater, force, that the more the owners of capital become linked internationally, the more firmly the workpeople of different nations should join hands and organize internationally. Can anybody feel certain that the labour policy of an international combine would be the same *after* the trade unions had declined to the point of dissolution, as it was when they were solid and strong?

In fact, during the past forty years, the trade unions have gradually built up an international organization. Like the international combines, its progress has been facilitated by the existence of national organizations; that is, by central federations uniting the majority of the trade unions in each country. "So long as the trade unions of the various countries were not united in one central federation, international association could only take the form of organizations linking up unions of workers in the same trade, and in fact these were the first international trade union bodies to come into existence."¹ These organizations, known as international trade secretariats, are still a strong and important part of the two-sided structure of international trade unionism. Primarily, their aim is to link together all workers in a given trade, irrespective of nationality. Thus there is the International Federation of Bookbinders and Kindred Trades; the International Clothing Workers'

¹ Sassenbach, *Twenty-five Years of International Trade Unionism* (1926), page 3.

Federation; the International Association of Textile Workers; the International Transport-workers' Federation; the Miners' International Federation, and others,¹ having an aggregate membership of about 7½ millions. The other side of the structure is the International Federation of Trade Unions, to which 26 national central federations are affiliated. The most recent adherent to the I.F.T.U. is the American Federation of Labor. The trade unionists of certain other countries (e.g. Brazil, Australia, and Japan) are absent from the list because it has not yet been possible to secure *national* federation. Europe is the birthplace and principal domicile of international trade unionism, and trade unionists in countries on the other side of the world do not always see that there can be for them any advantage in affiliating to the I.F.T.U. But distance has not been the only obstacle to the rise and progress of international trade unionism. Differences of language, outlook, trade union organization, machinery, and method have all presented formidable but not insuperable obstacles. On the other hand, the main motive force pressing the movement onwards has been the realization of the magnitude of the tasks facing organized labour in the international sphere. These include the attempt to obtain a shorter working day and uniform pay and conditions for all workers doing similar work, irrespective of nationality;² to render international assistance in industrial disputes between workpeople and employers, "not merely by collecting money, but also by preventing strike-breaking,"³ refusing to manufacture goods intended for the country affected, and preventing the transport of such goods";⁴ and to offer opposition to militarism. As to international combines, the attitude and policy of the I.F.T.U., published in a pamphlet in 1931, is based upon the view that the

¹ See Appendix XI for a complete list.

² The growth of international combines might help, rather than hinder, the achievement of this particular object.

³ By importing workers from other countries.

⁴ Sassenbach, *op. cit.*, page 121.

tendency towards the elimination of free competition within the capitalist system, the substitution of cartels, trusts, and similar organizations, and the creation of complete or partial industrial monopolies, all reinforce the economic power of capitalist groups and, if allowed to go unchecked, constitute a grave menace to workers and consumers generally. At the same time, "Labour cannot join in general condemnation of economic developments which tend to eliminate competition, but must rather aim at the public supervision and regulation of monopolistic organizations," including international supervision of international combines.¹

As long ago as 1907 an international conference of trade unionists passed the following resolution—

The fifth international conference is of opinion that for general reasons of solidarity as well as for reasons of prudence in view of the rapid growth of the employers' combinations, the separate trade unions should affiliate to their respective federations in their own country and that, for the same reasons, those federations should affiliate with their respective national trade union centre.

When this duty is accomplished and only then, this Conference advises the separate federations of every country to federate with their separate federations of all other countries, thereby securing much greater support of important struggles than could be given by their national centre alone. At the same time this will also help to further international brotherhood and solidarity among the workers.

Perhaps it is neither untrue nor unfair to say that the international trade union movement has actually come less close to the achievement of its principal objects than have the international combines, taken as a whole, to the attainment of theirs. In particular, it has always been difficult, though not impossible, to secure international assistance of the kind outlined above when any national group of trade unionists has been engaged in an industrial conflict. Nevertheless, the seeds of the international idea are planted in

¹ I.F.T.U. pamphlet, *Fighting World Economic Crisis and Unemployment* (1931), pages 18-19; see extract in Appendix X.

both movements. Capital has long since laughed at national frontiers; and just as the capitalists and financiers of one nation are coming to feel a greater affinity with those of another nation than with the workpeople of their own, so the workpeople of one country may come to possess a greater sense of harmony and community of interest with the workpeople of other countries than with the employing classes of their own, especially if the latter are convicted or strongly suspected of being hand-in-glove with Fascism, the sworn, implacable enemy of all free, democratic trade unions.

CHAPTER VII

FUTURE PROSPECTS

THE problem of the future of international combines is largely the problem of retaining the advantages, while we reduce or eliminate the disadvantages. International combines cannot be condemned out of hand: neither can they be hailed and lauded in a general way as an entirely desirable development worthy of every encouragement. In 1927 the Trade Barriers Committee of the International Chamber of Commerce stated that the development of "international industrial ententes" was strongly to be recommended, and added the opinion that such ententes should respect (*a*) the right of all nations to have the free use of raw materials and (*b*) the interests of labour. But they did not seem to know, nor did they inquire, whether this respect was, or was likely to be, paid to the interests mentioned.¹ Therefore, the Committee's strong recommendation seems somewhat precipitate. At best international combines may secure a more methodical organization of production, a rapid improvement of technique, and a reduction of costs; they may check wasteful competition, and the wastes which result from wide and frequent fluctuations in industrial activity. At best they may assure steadier and larger profits to producers; steadier and higher wages to workpeople, and steadier and lower prices to consumers. These are their potentialities for good. At worst they may seize and abuse a monopolistic position, arrest technical progress, and exploit consumers. They may drive extremely hard bargains with workpeople and customers, and grow fat upon profits inflated by a large element of monopoly "rent" or surplus. The World Economic Conference (1927) having

¹ *Report to the International Economic Conference, Geneva, 1927* (C.E.I. 5), page 30.

reached the conclusion that "international industrial agreements must be considered as good or bad according to the spirit which rules the constitution and operation of the agreements, and in particular according to the measures in which those directing them are actuated by a sense of the general interest," recommended that the League of Nations, acting in collaboration with various Governments, should closely follow these developments and their effects, and by publishing information from time to time, help to secure the support of public opinion against the growth of abuses and in favour of international industrial agreements conducive to general welfare. But it may well be doubted whether the sense of the general interest to which the Conference referred can be kept alive and keen except by the active presence, within the machinery of every international combine, of representatives of governments, consumers, and workpeople.

If any serious attempt is to be made to control international combines, such control may be exercised (a) from within the combines; or (b) from outside; or (c) through some blend of internal and external control. In the immediate and near future there seems to be little possibility of introducing (a) or (c) on an international scale; while as to (b), in such attempts as they have made so far to exercise control over international combines, the various States of the world—with one or two exceptions—have relied upon legal provisions which have come down from periods before international combines had made their appearance. But even if more modern laws and special administrative courts be introduced, there still remains the possibility that the offending combine may not "reside" within the jurisdiction of the State offended. Action taken against its local sales organization and its goods (e.g. on the ground that the prices charged are exorbitant) may be countered by the combine cutting off all supplies of that type of goods. And even where the international combine, or a certain portion of it, is within the jurisdiction of an offended State, such

jurisdiction can extend only to acts committed within its territories. Private international law is as yet insufficiently developed to offer any way out of these difficulties, and there is no international authority to deal with the problem.

A sufficient measure of agreement between a sufficient number of States would be difficult to achieve, and might not materialize for many years. But even when the initial obstacle had been overcome, it would still be necessary, as M. Oualid points out, to lay down definitely the criteria by which an international industrial agreement is to be distinguished from a national industrial agreement; to enforce complete publicity concerning all international agreements or combines and their ramifications; to determine what measures and machinery of surveillance and supervision should be adopted; and to determine what sanctions should be applied. The national machinery on this plan in each State might with great advantage be linked to a central institution under the League of Nations, to which complaints and appeals might be addressed, and from which information and inquiries might be sent to the appropriate national public authorities. A first, and very important, step might very well be the development of a "careful, adequate, and courageous" system of publicity by a central international body, such as the League of Nations.¹ This body could begin to act even in the absence of agreement to co-operate among a substantial number of States, but in that case it would find it difficult to obtain sufficient information "by request"; and impossible to force combines to give it, since the international body would have no jurisdiction or powers within the borders of national states. Its sole sanction would be the publication of the names of such international combines as had refused to give specified information.² Some States might pass laws enabling them to extract information which could then be supplied to the

¹ Inquiries into wages, hours, and working conditions might be carried out by the I.L.O.

² Salter, *Recovery* (1932), page 205.

international body; but the method would be defective unless a good many states agreed to pass and enforce similar legislation. It is clear, therefore, that nothing short of an international convention between all the principal states of the world will have much chance of success. Under such a convention a system of surveillance and control could be introduced, similar to that of the Permanent Mandates Commission; all international combines could be required to make certain returns and reports to the Commission, and injured parties could complain to it and demand full inquiry into their grievances. Normally, wide and complete publicity should be given to all hearings and documents, and only the Commission should have power to suspend the rule in exceptional cases.

Control or no control, international combines are likely to increase and spread. It is, indeed, an obvious feature of the existing economic system that science and organization and power-machinery in the service of production, instead of being instrumental in bringing about a rapid rise in standards of life throughout the civilized world, are causing such a widespread fear of over-production and ruinous competition as to drive producers into international combines with the object of *restricting* production—in other words, of holding back the full benefit which the phenomenal productive progress of recent times ought to be conferring upon mankind. Elsewhere I have defined *consuming power* as all actual and potential human powers to consume goods and services; and *purchasing power* as the effective demand which people are in fact able to exercise as buyers in the market.¹ In the last analysis the solution of the world's difficulties must depend upon a widespread distribution of ample purchasing power among the masses of ordinary people, whose continuous demand is vital to the steady, smooth working of the economic machine. The nearer the purchasing power of the populations of

¹ Plummer, *The World in Agony: An Economic Diagnosis* (1932), pages 38, 71-2.

the world can be brought towards their consuming power, the more trade and prosperity there will be for all. Since approximately 67 per cent of all the people in the world are either independent agriculturists or wage-earners in agriculture, in one or other of its many branches, the pursuit of such a policy involves the international regulation of the production of certain crops and commodities of world-wide importance, the demand for which is known to be inelastic, in such a way as to prevent gluts and the consequent contraction of the purchasing powers of agricultural populations. For it appears that this is one of the principal causes of unemployment and reduced spending and consumption among the industrial populations of the world. International combines would gain much from such a solution; but, more than this, by pursuing enlightened, public-spirited policies, they have a great deal to contribute to it.

Mr. Leonard Barnes, an authority on colonial affairs, thinks that "imperial cartelization" is a promising field, as yet little explored.

In the house of modern industry (he says) are certain many-storied mansions, where independent phases of manufacture are linked in great horizontal and vertical groupings. For many years it will be impossible to build complete structures of the kind into the economic life of a Dominion. In such cases there are openings for agreements between complementary industries in Britain and in the several Dominions, allotting a defined range of production to each. A partial example of what may be done in this direction is afforded by the series of understandings reached by the British and the Canadian steel industries since 1931. . . . Another interesting departure in the commercial diplomacy of the Empire is the agreement reached between the Lancashire cotton interests and the Bombay mill-owners in November, 1933—an agreement that for the first time opened the way towards co-operation between Lancashire and Bombay both in the Indian market and in foreign markets.¹

¹ *The Duty of Empire* (1935), pages 211-12.

In February, 1936, it was reported that an agreement for a period of five years had been signed in London between the South African Iron and Steel Corporation of Pretoria (representing the iron and steel producers of South Africa), the International Steel Cartel, and the British Iron and Steel Federation, whereby the requirements of South Africa were secured to the South African producers to the extent to which they can meet these demands. The importation of the balance, controlled by the British Iron and Steel Federation and the Cartel, is to be regulated in a manner to ensure the most suitable source of supply, and prices will be stabilized at "an economic level" calculated to stimulate consumption of iron and steel in the South African market.

Other examples and forms of imperial combinations can be cited.

The largest meat company in Great Britain to-day is the Union Cold Storage Co., Ltd., which has a capital of £12,000,000, and owns not only refrigerating plants and cold storage premises in Britain and abroad, but a line of steamships (the Blue Star Line) and a chain of retail butcher shops. It owns the share capital of eighteen British companies and a controlling interest in London Central Markets Cold Storage Co., Ltd., and Metropolitan Markets Cold Storage Co., Ltd. The Union Cold Storage group of companies, which handle approximately 40 per cent of the imported meat supplies of this country, is linked through W. Weddell & Co., Ltd., with W. Angliss & Co. of Australia, one of the largest meat businesses in the British Empire. Or again, the British Match Corporation, Ltd., which was formed about the same time as Imperial Chemical Industries, Ltd., and has an issued capital of £6,712,500 (1937), owns all the ordinary shares of the famous firm of Bryant & May, through which control is exercised over lumber and match factories throughout the British Empire and (through a subsidiary) in Brazil.¹

Modern industrial and commercial organization, so far

¹ *Stock Exchange Year Book*, 1937, pages 997 and 1029.

as it has struggled free from national limits, and become international in outlook and scope, has already gone ahead of political organization, and is more in tune with the spirit of to-morrow. Whether the international combination movement will ultimately be found worthy of praise or condemnation will depend upon whether the majority of the combines boldly embrace the advanced concepts of this fresh phase of our civilization, this New Age; or whether, blind to their own best interests and the just claims of consumers and wage-earners, they hark back to the ideas and methods of a more primitive stage in economic evolution. In his study of the dynamics of industrial combination, Professor Marquand raises the question whether "concerns, having authority and responsibility so widely spread, may not act as the agents of a higher integration, not of industry in one particular line from raw material to finished product, but of industry as a whole. May they not devise administrative schemes for the world-wide fitting into one another of the operations of whole businesses . . .?"¹ It may prove possible to associate government representatives, and consumers' and workers' representatives, with the control and administration of international combines; to reduce greatly the fluctuations in the volume of employment, and to prevent wage reductions, which, by reducing the purchasing power of the many, help to cause or aggravate trade depressions.

Furthermore, it is not impossible that a marked increase in the numbers of closely-knit international *concerns* may help to reinforce the influences making for world peace. For although cartels and other loosely-knit international organizations can, if the devil drives, readily dissolve into their component parts on the outbreak of a great war, the majority of the more closely-knit international organizations find that war causes a disastrous disorganization entirely inimical to their interests.

¹ H. A. Marquand, *Dynamics of Industrial Combination* (1931) page 135.

The development of international air transport services should be a strong force tending, in a double sense, to bring the nations closer together. Commercial aviation is most successful where long flights can be made, or where the aeroplane can take a short cut not possible to surface transport, or where troublesome and costly transshipments can be avoided by air transport. In practice this means that outside the great countries which are also continents, such as Russia and the United States, a large proportion of air transport is bound to be international, and it cannot hope to thrive in the absence of widespread, efficient, and economical international organization. But among the chief hindrances to progress along these lines are the persistence of crude nationalism, the fear of war, and the fact that air transport companies were originally established on national, and often governmental, foundations. From this position the companies have not been able to move because of their dependence upon their governments for the subsidies essential to solvency. Moreover, the Air Convention of 1919, which is the basis of international law relating to aerial navigation, leans heavily towards the old, narrow interpretation of national sovereignty. Whatever the early ideals and intentions may have been, the present position is that each state has complete sovereignty over the air above its territory and territorial waters; no air service can be established without the permission of the states over which it proposes to pass, even if the aircraft do not want to land, and/or will not pass over any area of military importance; and a sovereign state can refuse permission without stating its reasons. Therefore, when a regular air service is projected, permission has to be obtained from the government of every country over which it wants to pass, whether a landing is to be made in that country or not.

Yet so pronounced is the "natural" trend of air transport towards organization and operation on an international scale that from its very beginnings this industry has pro-

duced examples of, and projects for, international combination. Thus, as early as 1921, we have Deruluft, a Russo-German combine, jointly subsidized by the two governments, which established an air service between Berlin and Moscow in 1922. The paid-up capital was contributed in equal proportions by the Soviet Government and the Deutsche Lufthansa, and the board of directors consisted of Germans and Russians in equal numbers. The same "fifty-fifty" arrangement applies to the personnel and the provision of material. Deruluft's main routes are Berlin, Danzig, Königsberg, Kaunas (Lithuania), Welikije Luki (Russia), Moscow; and Berlin, Danzig, Königsberg, Riga (Latvia), Tallinn (Estonia), Leningrad. More impressive still, in a way, although it was never carried into effect, was the Junkers plan, in 1925, to combine and co-ordinate all its associated companies in Danzig, Estonia, Finland, Germany, Latvia, and Sweden, which constituted the Nord-Europa Union, with those companies in Austria, Germany, Hungary, and Switzerland, then included in the Trans-Europa Union.

It appears that the form of international combination most favoured in the air transport industry at present is the pool, which is usually a loose cartel between two or three national companies, formed with the approval and support of their governments. Mr. L. C. Tombs has compiled a list of thirty air lines operated under pooling arrangements between companies that are members of the International Air Traffic Association.¹ The nationalities

¹ The International Air Traffic Association, formed in 1919 by a group of British, Dutch, German, and Scandinavian air transport companies, now includes about thirty companies in its membership. The Association is not an international cartel dividing up air transport business between its members. Its objects are "the establishment of unity in the exploitation of air lines" over the territories of two or more states. A large number of operational questions come before the Association, and it has been able to organize co-operation between the various air transport companies on such matters as the standardization of conditions of carriage and the use of an international bill of lading, an international passenger ticket and common time-tables, and the organization of combined air-rail transport.

of the companies given in this list and the number of pooling arrangements are as follows—

<i>Nationality</i>	<i>No. of Pooling Arrangements</i>
German-French	2
German-Italian	1
German-Swiss	2
German-Belgian	1
German-Danish-Swedish	2
German-Polish	1
German-Austrian	2
German-Czech-Austrian	1
German-Czech	1
French-Swiss	2
French-Belgian	1
French-Belgian-Dutch	1
French-Spanish	1
French-Italian	1
French-Austrian-Yugoslav	1
Dutch-Swedish	2
Dutch-Czech	2
Dutch-German	1
Dutch-German-Italian	1
Austrian-Italian	1
Austrian-Hungarian	1
Czech-Yugoslav	1
Swedish-Finnish	1

Of course, these pooling agreements differ in detail, but the most typical ones provide as follows—

1. The flights shall be along certain defined routes.
2. The number of flights to be made by each company shall be determined and regulated as agreed between the parties.
3. Each company places at the disposal of the other its local equipment and organization, and is responsible for advertising, transport of passengers and goods to and from airports, the loading and unloading of aircraft, etc., in its country of origin.
4. The cost of fuel, repair, and maintenance of aircraft is allocated directly to each machine and is chargeable to the company owning it.

Air transport charges on European routes are usually "fixed within the framework of the I.A.T.A." and then submitted by the national companies concerned to their respective governments for approval.

5. Revenue received from passengers and freight is sometimes pooled and divided in proportion to the load and the distance flown; but where services are operated by companies with aircraft of approximately equal capacity and the frequency of operation by each company is the same, equal division is usual.

6. Receipts from subsidies are not pooled, and receipts from mails are often excluded also.

7. Fares and freight rates are similar throughout the combine's system.

8. In the event of breakdowns and other emergencies each company will assist the other as much as possible.

Experience shows that such pooling agreements eliminate or prevent duplication of services and help to reduce operating and general costs, and to increase commercial receipts.¹ Indeed, on the majority of routes the volume of traffic has never been sufficient to sustain one company without a subsidy, much less two or three competing companies.

It is quite usual for a State to grant rights of passage over its territory to a foreign air transport company on condition that the latter comes to an agreement with one or more local air transport companies. Such bargains may be, on the whole, fair to both sides; but where a State knows or believes that its territory is an essential section of the route, it may use its legal power of exclusion in such a way as to cause a hard bargain to be forced upon the foreign company. Thus, pioneer air transport companies run the risk of having the fruits of their enterprise filched from them by less efficient state-supported companies that have entered the business at a later stage of development. An example is given by Lieut.-Col. Harold Burchall in his description of the numerous difficulties encountered by Imperial Airways, Ltd., in planning and operating the air route from England to India.

¹ L. C. Tombs, *International Organization in European Air Transport* (1936), page 39.

It was not only in Persia that difficulties were encountered in the operation of the England-India route. Italy would not agree to our entering Italy from France along the coast, although the French were using the route we wished to follow. So it was originally planned that the India mail and passengers should leave Croydon on a Saturday morning and fly to Basle, where they would arrive in the late afternoon. It is not yet (1933) commercially practicable . . . to fly across the Alps, so from Basle the passengers travelled in the night train to Genoa. On Sunday morning they left Genoa in a three-engined flying 'boat for Rome, Naples, and Corfu. From Corfu the service went *via* Athens and Crete to Tobruk in Italian Cyrenaica, and from there to Alexandria.

Our agreement with the Italian Government specified that an Italian Company should also fly between Genoa and Alexandria, using the same route as ourselves, but in the middle of the week instead of at the week-end. In this way there would be two services a week between Genoa and Alexandria.

After nearly a year's operation, a proposal was put forward for pooling traffic between the two companies, which we could not accept; and owing to this disagreement we had to give up flying through Italy and change our route hurriedly to Central Europe. . . . It was a satisfactory route during the summer, but the weather conditions were very bad in winter. . . . In consequence, flying had to be confined to daylight hours, and in winter, when these were short, the mail and passengers were sent by a convenient night train over that sector.

After running on this route for eighteen months, a rapprochement occurred with Italy. It is unnecessary to go into details, but it may be stated that in May, 1931, an agreement was reached under which we were authorized to revert to the Genoa-Naples-Corfu route for one year, and thereafter to operate with aeroplanes from Milan to Brindisi, and with flying boats from there, *via* Athens, across the Mediterranean. Since the winter weather is better on this route than in Central Europe, we returned to this route in the same month, with, however, a certain amount of uneasiness about another change of route a year later. The proposed new route also produced another cause for uneasiness, namely, that the winter weather round Milan is bad—fog being very prevalent—and that in any case the aeroplane operating the Milan-Brindisi sector would be flying

uneconomically and increasing the cost of the service we have to offer the public.¹

The proposal for pooling traffic put forward by the Italians was quite rightly rejected by Imperial Airways, Ltd., for it was exceedingly unfair. The traffic which Imperial Airways, Ltd., was carrying was not derived from Italian sources, but was traffic between the United Kingdom and places beyond Italy. Nevertheless, the Italian company tried to force Imperial Airways to concede a 50 per cent interest to them in this transit traffic carried entirely on Imperial Airways machines, and, because of the British company's very natural refusal to agree to terms of this kind, the Italians invoked the aid of their Government. The consequent withdrawal of permission to fly over Italy, unfair and crippling as it was to Imperial Airways, was not contrary to international law.

It is, perhaps, not generally realized that the political obstacles confronting air transport companies are in many ways more formidable than the technical and economic difficulties, and that the pooling arrangements between the companies are not always the product of normal business negotiations.² The close correlation between international politics and the development or frustration of international air transport is strikingly illustrated by the terms and effects of the Czech-Soviet pact and air convention, both signed on 16th May, 1935. The air convention provides, *inter alia*, for an air service between Moscow and Prague, via Roumania, without flying over Polish territory. In other words, the shortest air route, *via* Poland, was rejected mainly for political reasons. Czechoslovakia and Roumania are members of the Little Entente; Poland is not. Moreover, on 31st May, 1935—

¹ See *Scottish Geographical Magazine*, Vol. XLIX, July, 1933, pages 200-1.

² Cf. League of Nations, Organization for Communications and Transit, *Inquiries into the Economic, Administrative and Legal Situation of International Air Navigation* (1930), pages 70-81, 146.

. . . the Polish air line between Warsaw and Vienna, which had been in operation for ten years, was discontinued after the Polish company had felt it inadvisable to comply with certain new operational requirements put forward by the Czechoslovak authorities. During and following this period political relations between Czechoslovakia and the Soviet Union were intimate; this was not the case in the relations between Czechoslovakia and Poland.¹

Within the British Empire, however, there is great scope for friendly co-operation between Imperial Airways, Ltd., local air transport companies, and the Dominion and colonial governments, who realize much more clearly than people living in the British Isles the great economic, medical, and psychological benefits brought by air transport to many of the vast, sparsely populated parts of the Empire.² Within the Empire the governments do not regard each other with hostility, but rather the reverse, and improvements in imperial communications are welcomed. Fear of war between the different parts of the Empire is non-existent; there is no deliberate obstruction of the forces of progress; the only problems are those arising from the division of the work, the earnings and the government subsidies between the participating companies. Since the latter consist chiefly of Imperial Airways, Ltd., and its subsidiaries, no great difficulties are encountered.

Under the Empire Air Mail scheme Imperial Airways operates two trunk routes: the one to South Africa, *via* Egypt, and the other to Australia, *via* India, Burma, and Malaya. On the African route a wholly-owned subsidiary, called Imperial Airways (Africa), Ltd., operates the services southwards from Alexandria. The feeder service from Khartoum to Accra is operated in part by a wholly-owned subsidiary, Imperial Airways (Nigeria and Gold Coast), Ltd., and in part by a company in which Imperial Airways has a substantial but not a majority interest.

¹ Tombs, *op. cit.*, page 121.

² "Loneliness, inability to reach the outside world of civilization, sickness and hurt of body and mind have all been overcome, by aircraft." A. E. W. Salt, *Imperial Air Routes* (1930), page 190.

Two other companies with which Imperial Airways is associated, namely, Wilson Airways, Ltd., and Rhodesian and Nyasaland Airways, Ltd., operate feeder services in conjunction with the trunk route, but these do not necessitate any pooling arrangement with Imperial Airways. The South African national company, South African Airways, Ltd.—also operates services to Kisumu, a point on the trunk route, and has, apparently, a pooling arrangement with Wilson Airways in respect of services which operate over the same route. On the Indian Route, Indian Trans-Continental Airways, Ltd., in which the Indian Government and others have interests—operates a service from Karachi to Singapore under a pooling arrangement with Imperial Airways, Ltd. The feeder service from Bangkok to Hong Kong is operated by Imperial Airways (Far East), Ltd., another wholly-owned subsidiary of Imperial Airways, Ltd.

Qantas Empire Airways—a company in which “Qantas” (Queensland and Northern Territories Air Services) and Imperial Airways are jointly interested—is responsible for the operation of the trunk route from Singapore to Brisbane, and the section of the Empire Air Mail route between Singapore and Sydney has recently been entrusted to this company by the Australian Government.¹ Yet another of the wholly-owned subsidiaries of Imperial Airways, Ltd., is Imperial Airways (Bermuda), Ltd., which

¹ Cmd. 5414, 1937, *Empire Air Mail Scheme: Note by the Secretary of State, etc.*, pages 3 and 12. The Empire Air Mail scheme, inaugurated in 1937 by a series of agreements between the Commonwealth Government of Australia, the Government of India, Indian Trans-Continental Airways, Imperial Airways, and several other associated air transport companies will have far-reaching effects. It will also represent a striking development in the form of long-distance carriage of first-class mails by air at a flat postage charge per $\frac{1}{4}$ oz. which for cheapness has never been approached anywhere in the world: so that an ordinary light letter will be conveyed for no more than 1½d. to Australia in 7–10 days (as compared with a month by the ordinary surface route); to South Africa in 4–7 days (as compared with 17–19 days); to East Africa in 2½–4 days (as compared with about 3 weeks); and to India in 2½–4 days (as compared with 14 days).

operates the Bermuda-New York service. It will be seen, therefore, that in little more than a decade Imperial Airways has developed into a highly important international concern. It began, in 1924, with thirteen machines: in October, 1937, it had fifty-three machines in service and twenty-six under construction. The number of routes miles open to traffic was 20,329 in 1936-37, against 1,760 in 1924-25; and the "traffic ton mileage" flown in 1936-37 amounted to 5,171,504, against 853,042 in 1924-25. The division of the traffic ton mileage between Europe and the Empire, and between passengers and mails, freight, etc., in the years 1935-37 is shown below.

TRAFFIC TON MILEAGE

<i>Mails, freight, etc.—</i>						Europe	Empire
1935-36	.	.	.	.	.	156,761	1,824,607
1936-37	.	.	.	.	.	140,507	2,238,441
<i>Passengers—</i>							
1935-36	.	.	.	.	.	1,129,907	1,692,152
1936-37	.	.	.	.	.	1,120,504	1,672,052

Projects for the formation of international concerns in the air transport industry have, so far, made much less headway than the pooling arrangements described earlier in this section. In 1930, the Air Transport Co-operation Committee, created by the League of Nations, expressed the opinion that "the pools system of co-operation between international aviation undertakings has developed satisfactorily" and that "the present state of legislation, and of economic and political conditions under which civil aeronautics are developing makes it difficult to reach a more fully developed measure of co-operation." The Committee therefore recommended the companies and their governments to extend and otherwise improve the existing system by means of international agreements designed to avoid unnecessary competition, to increase the economic efficiency of the international air transport services, and "develop among the different undertakings a spirit of friendliness which will prepare the ground for closer co-operation." Two years later the Committee

discussed the possibility of bringing about this closer co-operation by the formation of one or more international air transport companies; but the experts were divided and the proposal came to nothing. The chief obstacle was the legal right of states to control flights of foreign aircraft over any part of the national territory.¹ "On such vital matters as the establishment of international airways and the creation and operation of air lines, state sovereignty still retains the decisive word," and " . . . it is understood that state aid is usually advanced to the air transport companies on the distinct understanding that the personnel and material would be immediately turned over to the government in the event of hostilities."² It seems clear that a more rapid advance towards international co-ordination or closer combination of the air transport undertakings in Europe is unlikely until we get a general disarmament convention containing a plan for the international control of civil and military aviation. Such a convention is, at present, well below the political horizon.

Although the interests of a great many international combines are better served by the preservation of peace than by the irruption of war, it is quite clear that a small but immensely powerful minority are the natural enemies of peaceful progress.³ It is no less clear that the tide of human affairs has recently set strongly in favour of the forces of disruption. Armaments breed armaments, and the profits to be made are immense and immediate. Towards the close of 1935, a leading firm of London stock jobbers issued the following illuminating estimate.

On a conservative reckoning, the (British) Government rearmament programme is likely to require an additional expenditure of from £40,000,000 to £60,000,000 per annum

¹ League of Nations Air Transport Co-operation Committee, *Economics of Air Transport in Europe*, by H. Bouché (1935), pages 62-4.

² Tombs, *op cit.*, pages 31 and 202.

³ It is significant that a paragraph heading in the official history of the Remington Arms-Union Metallic Cartridge Company reads "Peace and Disaster."

over the next few years. At least 40 per cent of this extra annual expenditure is bound to be booked by Vickers and its subsidiaries. Using the lowest figures this means an increased turnover for the group of £16,000,000 a year. Supposing that the Government will only allow a modest net profit of $7\frac{1}{2}$ per cent (after obsolescence) on this turnover, there are additional earnings of £1,200,000 per annum accruing to Vickers as financial custodian of the group. Such earnings are equal to an extra 30 per cent on Vickers' Ordinary share capital of £4,105,161.¹

These preparations for aggressive or defensive warfare affect an ever-widening circle of important industries. Not only are the iron, steel, copper, and lead industries involved, but the industries producing and working nickel, aluminium, and other non-ferrous metals and alloys are drawn in, as well as the chemical, textile, oil,² and rubber industries, and the new, but important, "plastics" industry. Modern war is increasingly comprehensive. It tends to conscript the entire human resources of the warring nations, either in the fighting forces or the munitions factories, and nearly all raw materials become war materials. The longer the list of essential war materials grows, the less is the likelihood that the existence of international combines will continue to be a factor making for peace. Thus, it "is impossible to doubt that the oil interests have in every country made a strenuous fight against the application of a sanction which would have brought

¹ *Observer*, 8th December, 1935.

² Oil is as essential to modern warfare as explosives or steel. Without it, battleships, warplanes, tanks, lorries, and ambulances are immobile and powerless. No nation in the international jungle feels secure unless it can control a source or sources of oil supply sufficient to meet its estimated requirements in the event of war. The fierce competition which has raged around the oil-fields of the world has not been simply commercial rivalry between great combines, such as Standard Oil and Royal Dutch-Shell, for, as Lord Davies says "behind these organizations loom the indistinct features of governments. . . . Access to the oil-fields must be secured, at all costs, and other nations must not be given the opportunity of diverting this precious stream into other channels." Cf. Davies, *The Problem of the Twentieth Century* (2nd Edn. 1934), Chapter VII.

Signor Mussolini's aggression (in Abyssinia) to a relatively speedy end."¹

The armament manufacturers, although they have thriven on the intensification of nationalism, have long been international in their outlook and operations. "We cannot live on Prussia alone," said old Krupp to the German Kaiser. Nor has this internationalism been merely a matter of free competition in world markets; for when "competition got too keen for business to be profitable, then peace was made between the rivals and the market was shared between them. It was in the munition trade that this process went furthest. After cut-throat competition during the long period of peace, the ammunition factories in 1897 formed a cartel which embraced practically the whole world. Production was controlled and markets delimited, and, more important still, European and American manufacturers agreed to standardize their export prices."² We have already seen that some of the earliest international combines were formed in the explosives industry, between the Nobel Dynamite Trust and kindred organizations in half a dozen countries in the Old World and the New.

Alfred Nobel . . . the inventor of dynamite, located his companies in almost all parts of the world, from Sweden to South Africa, from Japan to South America. Most of these scattered interests were gathered into two huge trusts, the Nobel Dynamite Trust Company, which combined the German and English companies, and the Société Centrale de Dynamite, which united the French, Swedish, Italian, Spanish, and South American companies. The boards of these two trusts were made up chiefly of Frenchmen, Englishmen, and Germans, but each country represented had one of its nationals among the directors.³

The great Du Pont concern, which now manufactures not

¹ Noel-Baker, *The Private Manufacture of Armaments* (1936), I, page 537.

² R. Lewinsohn, *The Profits of War* (1936), page 147; W. S. Stevens, *Industrial Combinations and Trusts* (1913), page 176.

³ Engelbrecht and Hanighen, *Merchants of Death* (1934), page 142.

only explosives in North, Central, and South America, but chemicals, paints, rubber goods, rayon, cellophane, and many other commodities, has grown from a gunpowder factory founded in the United States by a French immigrant, Eleuthère Irénée du Pont, with the support of Napoleon I himself.¹ The transformation of this firm began in 1872, when, under pressure of a slump in the gunpowder trade, Du Ponts decided to bring "order" into their industry by uniting all the gunpowder makers in the United States. In other words, they were out to create a monopoly by purchase, affiliation, or, if necessary, by competitive elimination.² This project was well on the way to completion when the American gunpowder industry was threatened with an invasion from Europe.

The companies concerned were chiefly the Vereinigte Köln-Rottweiler Pulverfabriken of Cologne and the Nobel Dynamite Trust Company, Ltd., of London. This menace was met in characteristic fashion. In 1897 an agreement was signed by the two groups, the European and the American, three points of which are of interest here as an example of co-operation between armament manufacturers—

1. Neither group was to erect factories in the other's territory;

2. If any government sought bids from a foreign powder manufacturer, the foreigner was obligated to ascertain the price quoted by the home factory and he dare not underbid that price;

3. For the sale of high explosives the world was divided into four sales territories. The United States and its possessions, Central America, Colombia, and Venezuela were exclusive fields of the American powder-makers; the rest of the world (outside of the Americas) was European stamping ground. Certain areas were to be open for free competition.³

But international combination in the armament industry did not end with explosives. The keen rivalry in the 1890's

¹ B. G. Du Pont, *E. I. Du Pont de Nemours and Company, A History 1802-1902* (1920).

² The details will be found in W. S. Stevens, *The Powder Trust, 1782-1912* (1912).

³ Engelbrecht and Hanighen, *op. cit.* pages 34-5.

between the Nordenfeldt machine gun and that invented by Hiram Maxim soon brought the parties (including Zaharoff, that super-salesman of death-dealing appliances) into combination. And so a truly international undertaking was formed by Maxim, an Anglo-American, Nordenfeldt, a Swede, and Zaharoff, a Greek. Later on, when Nordenfeldt had seceded, this company was taken over by the Vickers combine.

The turn of the century saw a still more "formidable massing of forces on the side of Mars," for in 1901 "Vickers¹ became part of a vast international armament trust—the Harvey United Steel Company, which had as its chairman Albert Vickers, the managing director of Vickers-Maxim, and on its board of directors representatives of the British firms, Charles Cammell & Company, Armstrong-Whitworth, and John Brown & Company; the German firms of Krupp and Dillingen; the Italian Terni Company; the French firm of Schneider and two other French steel companies, and the Bethlehem Steel Company of America.² In 1906–7, Vickers and Armstrong-Whitworth acquired control of the undertakings of Whitehead & Company, not only in Britain, but in Austria-Hungary, where the plant, called Reszverytarsaag, was situated at Fiume. Five of its eight directors were British. Vickers and Armstrong also participated to a large extent in the building up of the armaments industries of Roumania, Italy, Spain, and Japan; while in 1913 the same companies combined to form the Imperial Ottoman Company for the purpose of reorganizing "the whole naval dockyards, arsenals, and armament of Turkey."³

¹ The firm of Vickers was originally established in Sheffield early in the nineteenth century, and for over twenty years its principal products were steel castings, tyres, axles, forgings, shafting, and bar steel. In 1897 a shipbuilding yard and engineering works at Barrow-in-Furness were bought, and subsequently many commercial and industrial enterprises were developed or acquired. Cf. J. H. Clapham, *An Economic History of Modern Britain*, III, pages 261–2 and 269–70.

² Engelbrecht and Hanighen, *op. cit.*, page 111.

³ "In 1906 and 1907, when Vickers and Armstrong-Whitworth placed British capital, British patents, British machinery, and

Moreover, Vickers were at that time in close relationship with the German arms firm, Loewe & Company, and a member of the Loewe family was on Vickers' board of directors,¹ while in France the Société Française des Torpilles Whitehead was incorporated (1913) to manufacture torpedoes, mines, etc. The name was French, but the decisive 51 per cent of voting power was "in the hands of the ubiquitous Vickers, Ltd., with Zaharoff receiving enough shares to sit on the board of directors."²

Another example is furnished by the German armament firm, Deutsche Waffen und Munitions Fabrik, of Berlin and Karlsruhe. Before the War, the managing director of this firm, Paul von Gontard, first combined with the Steyr Werke, which made small arms and small arms ammunition in Austria-Hungary, and a little later Steyr and Von Gontard

jointly established in Russia an armaments company known as "Parabellum," with large new factories on Russian soil. Von Gontard and Steyr not only furnished much of the capital required for the establishment of the Russian company; they not only gave it the advantage of German organization and German brains; they gave it also the advantage of all their patents and secret processes of every kind.³

As armaments expanded and tension increased in Europe, this combine flourished exceedingly, and by 1914 it was paying 32 per cent on its capital.⁴ Such organizations are a common feature of the armament industry. Immediately before the last Great War, Krupps of Essen, and Blohm

British brains at the disposal of Austria-Hungary to assist them in torpedo warfare, Austria-Hungary was bound by the closest possible military alliance to Germany, and Germany was engaged in a keen naval competition with Great Britain. Indeed, it was certain as anything in human politics could be that, if the ships and torpedoes made by Reszverytarsaag were ever used in war, they would be used against the Triple Entente to which Great Britain belonged." Noel-Baker, *op. cit.*, I, pages 39, 133-4, 350.

¹ Lewinsohn, *op. cit.* pages 147-8.

² Engelbrecht and Hanighen, *op. cit.*, page 106.

³ Noel-Baker, *op. cit.*, I, page 40.

⁴ *Ibid.*, page 447.

and Voss of Hamburg were "interested" in the chief Russian armament factories, while the Anglo-Italian firms of Ansaldo-Armstrong, Vickers-Terni, and Armstrong-Pozzoli were building ships and manufacturing war equipment for the armed forces of Italy.¹

Early in the twentieth century the Russian Government decided to build a number of warships, including three new "dreadnoughts" which were to be constructed in the Nickolayeff shipyards on the Black Sea. The contracts were given to the Franco-Belgian Company and the Russian Shipbuilding Company. In fact the so-called Russian company—

. . . was a smoke-screen for a mixed foreign combination financed by the Banque Privée of St. Petersburg, which in turn was the subsidiary of the Société Générale, a Parisian bank. This parent bank had close connections with John Brown & Co. and Messrs. Thornycroft, Vickers and other English firms, who were to get most of this naval business.²

The building and operation of a new Russian artillery factory at Tzaritzine on the Volga was also secured by Vickers. But the other international giants were determined not to be left out. Schneider, working secretly with Krupp and the Skoda Company (then an Austrian subsidiary of Krupp), succeeded in gaining undisputed control of the Russian Putiloff armament factories. And all the time, of course, the French people thought that the firm of Krupp—the German spear-point directed at the very heart of France—and their own patriotic Monsieur Schneider were implacable enemies.

The success of Japanese arms in the Sino-Japanese War of 1894 enabled the Japanese to obtain loans from English, French and American banks.

The American banker, Jacob Schiff, was so impressed that he organized a consortium of American and English banks in the first large loan to the Japanese government.

¹ *Brassey's Naval Annual*, 1913, page 337, quoted by Noel-Baker, *op. cit.*, I, page 191.

² Engelbrecht and Hanighen, *op. cit.*, pages 130-1.

The Japanese incidentally got more than money as a result of this war; they obtained possession of Formosa and various important islands—the beginning of Japanese imperial expansion. Only the intervention of the Western Powers prevented them at this time from gaining a foothold on the Chinese mainland.¹

The international armament combines had to wait a few years before they could follow along the trail blazed by the international bankers. Until the Russo-Japanese War had demonstrated the vastness of the demands of modern warfare upon the munitions industry, Japanese arsenals remained in state ownership and control. But after the war with Russia, the Japanese allowed the establishment of the Japan Steel Works, a privately-owned arms factory in which Vickers were not slow to acquire a large block of shares.

In the Japanese national economy immense power is wielded by the four great *Zaibatsu*, or “money-cliques”—Mitsui, Mitsubishi, Sumitomo, and Yasuda. Nearly all sides of Japanese life are touched and influenced by these concerns, and their relations with the Japanese Government are exceedingly close and lucrative.

What is especially significant is that the rise of the *Zaibatsu* has depended upon privileges extended to them by the Government and upon their ability to provide the State with financial and other resources in times of stress. They have all benefited from colonial exploitation, and in each of the great wars in which Japan has been engaged they have earned large profits, both from the provision of loans and from supplying war materials. In other words, they have been the necessary instruments of national policy and have reaped a considerable share of the rewards of the success attending that policy . . . they are pre-eminent at once in finance and also in industry and commerce. . . .

The *Zaibatsu* have been associated with many foreign

¹ Engelbrecht and Hanighen, *op. cit.*, page 227. Japan waited. Forty years later she was much stronger; the Western Powers failed to intervene, and to-day Japan has not only a foothold on the Chinese mainland, but a stranglehold on China and Chinese trade with the Western Powers.

concerns in the development of particular industries and have acquired many foreign patent rights. For example, Mitsui is associated with Babcock & Wilcox in the control of the large boiler-making works of Toyo Babcock.¹

Moreover, the Zaibatsu have invested heavily in official and semi-official enterprises, such as the South Manchurian Railway.

Thus the armaments combines and their financial allies, thriving on war and preparations for war, extended their profit-sucking tentacles into every part of the world. A sub-committee of the Temporary Mixed Commission set up by the League of Nations to inquire into the manufacture of armaments, unanimously reported, in 1921, that "armament firms have organized international armament rings through which the armaments race has been accentuated by playing off one country against another," and that "armament firms have organized international armaments trusts which have increased the price of armaments sold to governments."² In the same year a government inquiry found that Nobel Industries, Ltd., occupied a monopolistic position in the British explosives industry, and owned or controlled over seventy companies, mostly in Great Britain, manufacturing explosives and other commodities.

All the explosives companies in this country, with the exception of three relatively small concerns, constitute one group under the control of Nobel Industries, Ltd. . . .

There are in the (British) explosives industry four combinations, viz.

- (i) The High Explosives Trade Association;
- (ii) The Safety Explosives Trade Association;
- (iii) The Electric Detonator Fuse Trade Association;
- (iv) The Fog Signal Association.

These associations fix the manufacturers' and retail

¹ Professor G. C. Allen in *Economic Journal*, June, 1937, pages 274 and 278.

² *League of Nations Document A.81*, 1921, page 11. Cf. Lady Wester Wemyss, *Life and Letters of Admiral Lord Wester Wemyss*, pages 405-6; and *Report of the Royal Commission on the Private Manufacture of and Trading in Arms* (Cmd. 5292, 1936), page 17.

minimum prices of practically all the explosives, detonators, and fog signals manufactured and sold in this country. Moreover, by reason of supplementary agreements with foreign manufacturers, these prices become the standard prices of practically all imported explosives; there is virtually no price competition.

Nor was competition likely to develop, for it was ruled out by international agreements for the standardization of prices and "territorial restrictions of markets." The Committee recommended that the Nobel combine's operations should be brought under the "continuous and effective surveillance" of the State.¹

But these disclosures, although they were published when the mournful memories of 1914-18 were still fresh, failed to stop the activities of the armaments combines. Even the Germans were not frustrated by the restrictions imposed by the Treaty of Versailles, for it is well known that soon after 1918 certain of the principal German armament manufacturers established factories in Holland, Switzerland, and Russia, while the powerful Bofors Company of Sweden passed under the control of Krupp, who have interests in several other countries outside Germany.² The "spread" of the military aircraft industry also received a special impulse at the end of the Great War, for the terms of the Treaty of Versailles and the drastic "Nine Rules" imposed upon German aircraft by the Conference of Ambassadors in May, 1922, drove several of the leading German manufacturers of military and civil aircraft to establish factories abroad, e.g. in Italy, Switzerland, Holland, the United States, Sweden, and Denmark.³ It

¹ Cmd. 1347, 1921, pages 10-12. Cf. for the position in 1936, *Report of the Royal Commission on the Private Manufacture of and Trading in Arms* (Cmd. 5292, 1936), pages 37 and 58, where price maintenance agreements, sometimes "disguised by a form of collusive tendering," are mentioned.

² See Noel-Baker, *op. cit.*, I, page 202 *et seq.*, where details of flagrant evasions of the armaments manufacture clauses of the Peace Treaties are given.

³ L. C. Tombs, *International Organization of European Air Transport* (1936), pages 10-11.

was in the same period, too, that Schneider obtained control of the Skoda Company, through a holding company, L'Union Européenne, which was financed by Schneider's bank, L'Union Parisienne Industrielle et Financière. Within a few years, the Skoda undertaking, reorganized and modernized, had gained control of the motor industry, and of cable, road construction, and aviation companies in Czechoslovakia, an armament firm (Polskie Zakłady) in Poland, and another in Roumania¹; "and in Yugoslavia Skoda reorganized the railroads and participated in the power company of the Central Electric. . . . It crossed the frontier of political alliances and . . . became interested financially in the Kreditanstalt of Budapest."² Schneider also acquired a large block of shares in Berg und Hüttenwerksgesellschaft—one of the largest iron and coal concerns in Czechoslovakia—the Huta Bankowa works in Poland, and many other enterprises in the Danube Basin.³ Nor must we forget that Schneider is also the principal force behind and within the Comité des Forges, the famous French combine. The Department of Overseas Trade Report, by Sir Robert Cahill, on *Economic Conditions in France* (1934) contains the following illuminating paragraphs⁴—

Schneider apparently controls the ARBED concern in Luxemburg. . . . Schneider also controls works in Germany . . . and is connected with enterprises in Poland, Central and South-east Europe, Spain, North and South America, and elsewhere.

French metallurgists have immensely extended their international position since 1918 not only by the great development of their internal production capacity but also by the acquisition of far-reaching interests in many European countries and by the actual magnitude of their increased foreign transactions. French interests in the iron and steel

¹ Lewinsohn, *op. cit.*, page 173; *The Economist*, 14th November, 1936, page 303.

² Engelbrecht and Hanighen, *op. cit.* page 194.

³ Lewinsohn, *op. cit.* pages 182-4.

⁴ Pages 222-4 and 666.

trade in Luxemburg, the Saar, and Czechoslovakia are very great; and considerable interests of varying importance have been acquired or extended in Belgium, Germany, Holland, Poland, Roumania, and in South-Eastern and Central Europe generally. Very considerable metallurgical interests before the War in Russia have been affected by Russian events. In South America and in the Far East French business, already substantial before the War, has been well maintained. The necessity to find foreign markets for national output far in excess of home consumption capacity also impelled the most strenuous French competition in foreign markets, and brought French goods forward prominently in most of the foreign markets, where in 1913 they occupied a minor place.

The French iron and steel industry has long been strongly organized for its common interests, having as its general staff the influential body known as the *Comité des Forges*. Founded in 1864 by the Eugène Schneider of the period, the *Comité* embraced already in 1887 three-quarters of the undertakings. Even by 1876 it had brought into life the first metallurgical *comptoir* (or central organization of producers of certain specific products for fixing periodically quotas of output or of prices, or both): in 1892, 1896, 1904 others followed. Within its fold were gradually brought the vast majority of the separate associations for definite branches of production, all of which retained complete autonomy, although they accepted the same person as director of each and every association. Under the same roof and under the same direction was also brought the central body of employers' associations, founded in 1901, known as the Federation of Metallurgical, Mining, and Allied Industries. By 1910 the *Comité des Forges* had developed into the greatest concentration of masters' associations for a multitude of general purposes that France knew: and from that period the French iron and steel trade may be regarded as having been powerfully organized and strongly led.

The four or five principal (French) steel groups prolong their activity into many transforming trades in which they own, control, or hold important interests, e.g. war material, railway rolling stock, electrical material, pipes, marine boilers, engines, Diesel, gas engines, shipbuilding, mining, sugar, agricultural machinery, optical and scientific instruments, and others. The tinplate industry is controlled by two of these groups.

The Vickers combine was also very much in the post-war picture, for Vickers and Schneider, in co-operation, founded in Poland the *Société Polonaise de Matériel de Guerre*, and in Roumania Vickers secured control of Reshitza, one of the greatest concerns in the heavy industry of that country. In collaboration with the Roumanian Government, Vickers ran munitions factories and took control of the ore mines and factories of Cospa Mika and Cugir in Transylvania. In Italy there was the Vickers-Terni Company, which absorbed the *Carburo di Calcio*, and controlled a subsidiary company in the electrical industry. In Spain the mines of Ponserrada were acquired, in France a special branch was set up, while in Canada and the United States all the Vickers interests—and they were many—were amalgamated under the Vickers and Combustion Engineering Corporation. Both directly and through a German subsidiary—the Berlin firm of Pintsch—the Vickers combine was linked up with several Dutch armament manufacturers.

Armstrong-Whitworth & Company developed along somewhat similar lines, gaining control, directly or indirectly, of such well-known British companies as the Pearson & Knowles Coal and Iron Company, Ryland Brothers, Ltd., the Wigan Junction Colliery Company, Ltd., Partington Steel and Iron Company, Ltd., and the Moss Hall Coal Company, Ltd. Armstrong-Whitworth also controlled or became “associated” with the Newfoundland Power and Paper Company, Ltd., and other companies in Japan, Spain, Italy, Yugoslavia, Belgium, and Australia.

But at length it became apparent that these two giant combines had over-reached themselves, and after the post-war slump an extensive and drastic reconstruction of both Vickers and Armstrong-Whitworth had to be carried through in order to stave off bankruptcy. Out of this reorganization came the greatest armament combine in the world, formed by the merging of the armament and naval shipbuilding interests of Vickers with those of Armstrong-

Whitworth.¹ Subsequently the steel interests of Vickers, Armstrong-Whitworth, and Cammell Laird were combined by the creation of a new company, the English Steel Corporation, Ltd.

Various sorts of links have been forged between the manufacturers of munitions and armaments. In the United States, for example, certain of the great banks and the financiers—especially “the Morgan group of corporation clients and banks”—are instrumental in tying together the chief manufacturers of explosives, chemicals, steel, copper, and other potential instruments of war.² Armaments notoriously swallow up vast sums of money, and often give rise to secret financial operations of great delicacy. “Hence armament makers either get control of powerful banks for themselves or they find bankers whom they can trust. In every great country certain banks are known as the ‘armament banks.’”³ Like Ivar Kreuger in search of match monopolies, armament manufacturers in search of orders not infrequently have to arrange the flotation of large foreign loans to their customers to enable the latter to meet the bill for arms and munitions when it is presented.

Another system of linking is not so much financial as personal: the creation of interlocking directorates. This method has proved exceedingly effective and fruitful to the armament combines.

In peace time they could solicit business everywhere, because their local directors would make the proper contacts. Since most of the larger companies also maintained branch factories abroad, the plea of “home industries” could frequently be made. In war time a separation of some kind

¹ Cf. R. Lewinsohn, *The Career of Sir Basil Zaharoff* (1929), Chapter X. The Vickers-Armstrong merger dates from 1st January, 1928.

² “When the armistice was signed in 1918, there were 21,000 new American millionaires, Du Pont stock had gone from 20 dollars to 1,000 dollars a share, and J. P. Morgan was said to have made more money in two years than the elder Morgan made all his life.” Engelbrecht and Hanighen, *op. cit.* page 173.

³ Engelbrecht and Hanighen, *op. cit.*, pages 144-5.

might become necessary, but this could readily be patched up again when peace returned. Thus the Great International, which political idealists and labour strategists have sought for so long, was actually taking shape in the armaments industry.¹

Mr. Noel-Baker cites the case of the German Lorsar Company

. . . in which the Comité des Forges is jointly interested with Herr Röchling and the Ruhr Steel magnates. The Paris Manager of the company is a nephew of Herr Röchling. The latter is a well-known Nazi leader who has publicly proclaimed himself an enemy of France. Yet the Lorsar Company sell armour plate to the French Navy and reinforced concrete for the eastern fortifications of France. This, indeed, is the main business of the company.²

The existence of the chemical industry is, of course, essential to modern warfare, and it is interesting to notice that in this direction also the great concerns are organized and linked up on an international scale. The board of directors of I.G. Farbenindustrie, for example, is international in composition, including as it does several of the leaders of the chemical industries of other countries with which the German concern has close connections. About three-quarters of the capital is stated to be in French ownership. Conversely, the extensive Etablissements Kuhlmann of France owe their origin to the work of German chemists and the use of German patents. The Kuhlmann concern maintains close relations with the German Farbenindustrie and with the Spanish dynamite companies. "Financially it is tied to Dillon, Read, of New York, the Crédit Suisse of Zurich, and Mendelsohn of Berlin."³ Agreements between the American Du Pont concern and Imperial Chemical Industries were examined during the United States Senate's inquiry into the armament industry, and it was revealed that Du Pont's and Imperial Chemical

¹ *Ibid.*, pp. 142-3.

² Noel-Baker, *op. cit.*, I, page 192.

³ Engelbrecht and Hanighen, *op. cit.*, pages 256-7.

Industries each owned 45 per cent of Canadian Industries, Ltd., and that for many years these companies have exchanged patents and secret processes for the manufacture of explosives and other war materials.¹ They have also maintained joint sales offices in different parts of the world and have agreed, on occasion, to share certain markets between them.

The links forged, in various ways, between the different interests in the armament industry are extremely useful even *after* the outbreak of war, for they greatly facilitate the large-scale smuggling of war materials through "neutral" countries, which is such a common accompaniment of modern warfare. Indeed, it is not impossible for serious disputes between the great armament combines to end in closer collaboration. Thus, before the last Great War, Krupp's had invented a special fuse for hand-grenades.

The British Company, Vickers, appropriated this invention during the War and many Germans were killed by grenades equipped with this fuse. When the War was over, Krupp sued Vickers for violation of patent rights, demanding the payment of one shilling per fuse. The total claimed by Krupp was 123,000,000 shillings (£6,150,000). The case was settled out of court and Krupp received payment *in stock of one of Vickers's subsidiaries in Spain*.²

In the years before the outbreak of the Great War, the French company, Le Nickel, of New Caledonia, was controlled by Rothschild's, the French bankers. Its board of directors, however, included two Germans who were closely associated with Krupp's and with the Metallgesellschaft of Frankfurt.

On 1st October, 1914, a Norwegian steamer loaded with 2,500 tons of nickel from New Caledonia, consigned to Krupp, was stopped by the French Navy, taken into Brest

¹ On I.C.I. and Vickers see also *Report of the Royal Commission on the Private Manufacture of and Trading in Arms* (Cmd. 5292, 1936), page 58.

² *Ibid.*, quoting Lehmann-Russbueldt, *War for Profits* (1929). My italics.

harbour, and claimed as a prize of war because it carried nickel. Immediately an order came from Paris to release the ship. The local authorities and the prize court were surprised and questioned the decision, but it was at once reaffirmed and the shipment of nickel proceeded to Hamburg. It was not till May, 1915, that nickel was declared contraband by the French and that the export from New Caledonia was controlled. By that time Le Nickel and the Rothschilds had adjusted their affairs—and Germany was well supplied with nickel for several years. . . .

A similar story concerns the . . . Société Minière de Penarroya (which) controls the most important lead mines in the world. . . . Since 1883 the French bankers, the Rothschilds, have controlled these mines, but in 1909 the Rothschild Bank entered into an alliance with the Metallgesellschaft of Frankfurt, the company in which both the Kaiser and Krupp were heavily interested. This international partnership was to continue until 31st December, 1916. It was very profitable to both sides.¹

It is often argued, in defence of the armament manufacturers, that theirs is a trade like any other, and that, after all, "business is business." This argument is clearly fallacious. Munitions of war are *not* like other commodities, for their sole purpose is destruction, not construction, of human life and property, and their quality is judged not by what they can add to the world's wealth and welfare, but by what they can subtract from it. Moreover, the supply of munitions, either in peace or war, does not tend to satisfy demand, but rather to intensify it; for the more one nation has, the more the other nations want; and the more they have, the more the first one must have. And so the vicious spiral soars towards breaking point and the inevitable colossal carnage.

The *Economist*, commenting upon the proceedings of the British Royal Commission on the Private Manufacture of and Trading in Arms, which sat in 1935-6, brought out very clearly the clash between the interests of the armament combines and those of the ordinary tax-paying citizens in all parts of the world.

¹ Engelbrecht and Hanighen, *op. cit.*, pages 167-8.

The first item in the charge commonly brought against the present system of manufacture and sale of armaments for private profit is that it must tend to increase the demand for killing-power. The firms which the community allows to sell this commodity are, naturally and legitimately, just as anxious to expand their business as any seller of boots or beer; and this desire for business, backed by great financial interests and a widespread selling organization, and often encouraged by the Governments of the exporting States, must inevitably tend to increase both the quantity and the power of armaments. In present conditions the motive of private profit must be a force making for international anarchy. The American Inquiry afforded many demonstrations of this tendency; and Messrs. Vickers, before the British body, in effect confirmed it in their description of the commission system under which their agents abroad operate . . . the present system lends itself to the formation of rings, national and international, which may be in a position to play into each other's hands in stimulating demand and in forcing up prices at the tax-payers' expense . . .¹

The fact that the armament combines control newspapers and other periodicals capable of influencing, moulding, and, indeed, creating public opinion in all the principal countries of the Old World and the New is as significant as it is sinister. The network is so widely and cunningly spread that strings can be pulled in two or more countries by the same hand, in order deliberately to create an international "atmosphere" charged with threats, fears, and tension—an "atmosphere" in which huge armament orders can easily be booked on all sides. In Germany, the great Hugenberg-Konzern controls not only newspapers in Berlin and the provinces, but an advertising bureau, an international news service, and the well-known UFA film company. "It is," says Mr. Noel-Baker, "impossible to doubt that through the Hugenberg-Konzern the armament interests of Germany are linked with the Press in the most intimate and the most dangerous way . . ."² The Du

¹ *Economist*, 15th February, 1936, pages 346-7. Cf. Lord Daives, *The Problem of the Twentieth Century* (2nd Edn., 1934), page 273.

² Noel-Baker, *op. cit.*, I, pages 259-62; Levy, *Industrial Germany*, page 172.

Pont combine controls a number of American newspapers, and it is alleged that in France the Comité des Forges and Schneider "call the tune" for such influential papers as *Le Temps* and the *Journal des Débats*.¹ "There is evidence," said the Royal Commission of 1935-36, "that in some countries they (the armament manufacturers) offered bribes to officials and even paid newspapers to suggest that their governments were showing less energy than the national security required."²

The creation of general international tension is the greatest of all crimes, for tension cannot be permanent—its intensity must either diminish or increase. Threats become ridiculous if they are not carried into effect from time to time; and a gauntlet thrown down will, sooner or later, be picked up. Past experience proves this conclusively. After most carefully weighing the evidence, Professor G. M. Trevelyan, in his book *Grey of Falloden*, reaches the conclusion that "the armament race and the fear-struck calculations it everywhere engendered, helped to cause the actual outbreak of war" in 1914. Ten years after that catastrophe, Lord Grey told the House of Lords that

Practically every nation in Europe was afraid of Germany, and the use which Germany might make of her armaments. Germany was not afraid, because she believed her army to be invincible, but she was afraid that a few years hence she might be afraid. . . . In 1914 Europe had arrived at a point in which every country except Germany was afraid of the present, and Germany was afraid of the future.³

"The German and Austrian military chiefs (said the Royal Commission of 1935-36) were agreed that the nations of the Triple Alliance were at the zenith of their armed power in the year 1914, and that they were likely to decline relatively to their opponents with every year that followed.

¹ *Ibid.*, pages 247 *et seq.*; Engelbrecht and Hanighen, *op. cit.*, pages 36 and 195-7; *Report of Royal Commission on Private Manufacture of and Trading in Arms* (1936), page 58.

² Cmd. 5292, 1936, pages 26 and 36-7.

³ Lord Grey in House of Lords, 24th July, 1924.

The Russians were of opinion that their favourable moment would not be until some years later."¹

The incredible slaughter and destruction of the Great War has changed nothing, except the number and efficiency of the methods of mass murder and the nations' expenditure on armaments—all of which have increased enormously. War is still resorted to as much as ever before to "settle" international disputes and as an instrument of national policy. And for all this the "Great International" of armament manufacturers and "merchants of death" is largely responsible. By fanning the flame of militarism wherever it can be found, they are creating in nearly every country a situation in which all economic life revolves around, and is subservient to, preparation for wars, either of aggression or defence.² From this springs a system of close alliances between the national governments and the international armament combines, which makes the transfer of the real, supreme power in economics and politics to the armament makers and their supporters much more than a remote possibility.

As we have seen, international cartelization, with its accompanying national quotas, often brings the representatives of the cartels into close contact and alliance with governments. Professor Robbins holds that such bodies are "one of the dominating influences in politics all over the world," and adds—

This influence is not healthy. It is an influence which brings it about that important issues are decided not on merit but by the pull of vested interests.³

¹ Cmd. 5292, 1936; cf. Fay, *Origins of the World War*, I; and *Memoirs of Conrad von Hotzendorf* (Chief of the Austrian General Staff), III.

² The recent melancholy story of internal strife in China shows that the warring factions were abundantly supplied with arms and munitions by British, French, German, and Japanese manufacturers, who thus prepared the ground for Japan's descent upon Manchuria and, a little later, upon China proper. "Schneider and Skoda and other leaders in this traffic acquired a huge building in the International Settlement (Shanghai). From this centre public opinion in Japan and China was influenced and made ready for war." Engelbrecht and Hanighen, *op. cit.*, page 230.

³ *Economic Planning and International Order* (1937), page 142.

No vested interests in any country can pull more powerfully than the armament combines, and no other pull is so likely to bring disaster and tragedy upon the common people. These ordinary decent citizens, the men and women "in the street," pay the bill twice: in the first instance through taxation, and in the second through the ultimate personal misery which war brings down upon them. Every country of any importance, and many countries of no importance, feel bound to prepare elaborate "blue prints" of systems of military and industrial mobilization, air-raid precautions, and food production and storage. Even the government of the United States is preparing for the great emergency. It has, *inter alia*, already made contracts with many thousands of industrialists, giving them all possible details of what will be expected of them in the event of war, and now (1938) comes the announcement of a new programme which will add no fewer than seventy ships to the United States Navy. Indeed, "it would almost seem as though governments exist merely to prepare for war."

The dilemma is obvious. No country, except Russia, whether it is, in the main, a producer or an exporter of arms and munitions, will consider for one moment the abolition of the private manufacture of armaments unless genuine and universal disarmament can be brought about; for all the governments concerned hold that it would be impossible for them to obtain the vast quantities of munitions so imperatively demanded by modern warfare without the aid of the great firms, like Vickers-Armstrong, Krupp, Schneider, Skoda, Bofors, Du Pont, and the rest. But it is equally clear that disarmament and peace will never come to bless the human race so long as the existing international combinations of armament manufacturers continue. These combines and their methods need not surprise us, for they are the natural products of our present political and economic arrangements. The history of international relations during the past decade has proved, above all else, that Might is still Right: and until a way is

found to reverse this order, the new world so ardently desired by the noblest of our reformers will never be possible. At best, we shall exist precariously in "continual fear and danger of violent death," and at the worst, millions of human beings will actually suffer mutilation and violent death in a series of wars all over the world. In either case our so-called civilization will remain a mockery and a sham, eternally condemned by its shameless prostitution of scientific progress to the most bestial and barbarous purpose it is possible to conceive.

APPENDIX I

INTERNATIONAL STEEL AGREEMENT

30th September, 1926

ARTICLE I

EACH country shall pay 1 dollar monthly into a common fund for each ton of crude steel actually produced.

By the term "crude steel" is meant all the crude steel manufactured in the several countries by the Thomas, Bessemer, Siemens or Martin processes, by the electric crucible, or any other process. This sum shall be credited to the account of the country in question. The first time, it shall be paid two months after the present Agreement comes into effect in the form of drafts at three months; for subsequent months it shall be paid on the 25th of the month following in the form of a draft at three months.

Should the Government of one of the countries participating in the Agreement object to the transfer of all or any of the sums payable under the present Article, the actual payment might be replaced—

1. By the guarantee of a bank approved by the Managing Committee; or

2. By a cash payment into a blocked account at a bank situated in the country in question and approved by the Managing Committee.

ARTICLE 2

The administration of the common fund shall be provided for by a Managing Committee of four members appointed respectively by each of the countries Parties to the Agreement, i.e. Germany, Belgium, France, and Luxemburg. Each of these four countries shall also appoint two deputy members to replace the permanent member in the event of his being absent or unable to attend.

The chairmanship of the Managing Committee shall be held for one year by each of the countries concerned in rotation.

In a general way, and in addition to the special provisions laid down in the Articles following, the Managing Committee shall make the necessary arrangements for carrying out the

execution of the clauses of the present contract and for exercising the supervision which it entails. It shall also have full powers for the administration, handling, and custody of the moneys paid into the common fund or held by it. The number of votes of the Managing Committee shall be allotted in accordance with the quotas.

ARTICLE 3

The Managing Committee shall fix the quota of each country for each quarter in accordance with the provisions of Article 4 not later than a fortnight before the beginning of that quarter, by applying coefficients—fixed once for all for each country—to the total tonnage representing the probable demand of the market.

ARTICLE 4

The coefficients allotted to the different countries can only be modified by unanimous consent.

The total quarterly tonnage, and accordingly the quotas of each country, shall be fixed by a two-thirds majority of the votes, each country commanding the number of votes proportional to its participation, with the proviso that unanimity of all the countries but one shall constitute a sufficient majority even if this latter country represents more than a quarter of the votes.

The Saar shall never vote individually; its votes shall be divided between France and Germany in their ratios of one-third and two-thirds.

ARTICLE 5

Every month each country's actual net production of crude steel during that month shall be ascertained, in relation to the figures indicated by the quotas.

ARTICLE 6

If the quarterly production of a country exceeds the quota which was fixed for it, that country shall pay in respect of each ton in excess a fine of 4 dollars, which shall accrue to the common fund, in addition to the payment provided for in Article 1.

ARTICLE 7

If the production of any country has been below the quota allotted to it, that country shall receive in compensation from the common fund the sum of 2 dollars per ton short.

The tonnage entitling to compensation may not, however,

exceed 10 per cent of the quota fixed for the quarter in question. If a shortage of 10 per cent or more below the quota fixed continues during several successive quarters, the tonnage entitling to compensation shall be reduced by two per cent for each successive quarter, so that in the second quarter of such shortage of 10 per cent or more the compensation paid shall not exceed 8 per cent, and in the third quarter it shall not exceed 6 per cent, and so on.

In the event of *force majeure*, the General Meeting of the several groups shall decide by a majority vote the amount of the compensation payable.

ARTICLE 8

The accounts shall be balanced quarterly, the excess contributions and sums due in compensation mentioned in Articles 6 and 7 being payable immediately after the balance of accounts.

At the close of each half-year, the common fund shall be liquidated, after deduction of the general expenses; the remaining balance shall be distributed between the several countries—

1. In proportion to the actual production during the accounting period, up to the limit of the payments made under Article 1;

2. And, if any balance remains over from fines, in proportion to the participation figures of the accounting period concerned.

The first liquidation of the common fund shall take place on 1st April, 1927.

ARTICLE 9

The present Agreement shall terminate on 1st April, 1931. Up to 1st May, 1929, however, any country shall be entitled to give notice of withdrawal from the Agreement on 31st October, 1929, in which case the other countries shall be released from all obligations on the same date.

ARTICLE 10

The present Agreement was concluded on the assumption that throughout its duration the tariff rates applicable to iron and steel products imported into Germany would not be increased. If Germany should proceed to increase the said rates, the present Agreement may be denounced at any time by each

of the Contracting Parties at three months' notice, and each of the Parties shall then recover full liberty of action in relation to its Government as regards tariffs.

The present Agreement, however, may be denounced at any time on and after 1st April, 1927, at three months' notice, if the Government of one of the Contracting Parties objects to it on the ground that, in the absence of a commercial treaty, one of the other countries is applying unfavourable treatment to the products as a whole.

If Germany or France denounces the present Treaty for one of the two reasons mentioned above, they shall also have the right to denounce it as against the other Contracting Parties, who, in turn, shall be entitled to denounce it *inter se*.

ARTICLE 11

Exchange in respect of the quotas of the countries is not allowed in the case of any company or *Konzern* unless that company or *Konzern* possesses and operates undertakings in another country. Ownership of at least 40 per cent of the share capital of these undertakings shall constitute possession.

Previous notice of such transfers must be given to the Managing Committee. The transfer cannot take effect until the beginning of the next accounting period, and must apply at least for that period.

ARTICLE 12

If on 1st April, 1927, the total consumption has not increased to such an extent that the Luxemburg group shall have obtained a quota of tonnage representing a minimum annual production of 2,360,000 tons, and on 1st April, 1929, tonnage representing a minimum annual production of 2,480,000 tons, that group shall be entitled to withdraw from the present Agreement at three months' notice. It shall then be open to the other countries also to withdraw from the present Agreement.

ARTICLE 13

Any disputes arising between the Parties as to the interpretation and carrying out of the present Agreement shall be compulsorily settled by arbitration.

ARTICLE 14

It shall be open to steel manufacturers in the other European countries to join in the present Agreement.

Admission shall be sanctioned by the General Meeting—

1. By a majority vote if participation is determined on the basis of the production of the first quarter of 1926;

2. Unanimously, if admission is granted on some other basis.

If the participation of the participating countries in the total production of the European countries for any one half-year is 5 per cent less than the same participation during the first quarter of 1926, the rescission of the present Agreement may be demanded by any one of the groups Parties to the Agreement, to take effect after three months' notice, which must be given not later than three months after the expiration of the half-year under consideration.

The Agreement may also be rescinded by any one of the countries Parties to the Agreement at three months' notice in the event of the total figure fixed for any one half-year being less than 13,139,000 tons. In this event, the notice of rescission must be given within a month.

SHARE QUOTAS IN THE INTERNATIONAL STEEL AGREEMENT (1926)

NOTE BY DR. G. LAMMERS

In fixing the share quotas of the individual countries in the International Steel Agreement, the basis taken was that of an aggregate annual production of raw steel of 25,278,000 tons and the annual quotas were fixed on this basis as follows—

	<i>Per cent</i>
Germany	40·45
France	31·89
Belgium	12·57
Luxemburg	8·55
Saar Territory	6·54

These participation figures are changed if the total output rises by 1, 2, 3 or 4 million tons up to 29,278,000 tons. Above this figure the final quotas are as follows—

	<i>Per cent</i>
Germany	43·18
France	31·18
Belgium	11·56
Luxemburg	8·30
Saar Territory	5·78

In the event of any further increase in output, these percentage quotas will remain unchanged. Belgium, however, on joining the International Steel Cartel, was granted a fixed quota of 295,000 tons per month irrespective of any restrictions which

might be imposed on output. As a consequence, the quotas of the other countries were somewhat reduced.

In November, 1926, the total output of the International Steel Cartel for the fourth quarter of 1926 was fixed at 29,278,000 tons. In December, 1926, by a resolution of the International Steel Cartel, it was decided to reduce the output for the first quarter of 1927 by 1.5 million tons. In March, 1927, this reduced output was once more raised by 1.5 million tons for the second quarter of 1927.

At the beginning of 1927, Czechoslovakia, Austria and Hungary joined in the International Steel Agreement. These three countries together received a share of 7.272 per cent, or 2.14 million tons, annually on the basis of a total output by the International Steel Cartel of 27,278,000 tons. These three Central European countries having joined the Cartel as a single unit, the distribution of their quota between them is a matter to be settled by themselves.

31st July, 1935

MEMORANDUM OF GENERAL AGREEMENT
concluded between

the BRITISH GROUP represented by the BRITISH IRON AND STEEL FEDERATION, London, responsible for the Firms and Companies enumerated in Appendix I,¹ and hereinafter called the "Federation" on the one hand

and

on the other hand
the FRENCH GROUP represented by the COMPTOIR SIDERURGIQUE DE FRANCE, Société Anonyme à Capital Variable, Paris, and responsible for the Firms and Companies enumerated in Appendix I:¹

the BELGIAN GROUP represented by the GROUPEMENT DES HAUTS FOURNEAUX ET ACIERIES BELGES, Société Co-operative, Brussels, and responsible for the Firms and Companies enumerated in Appendix I:¹

the LUXEMBURG GROUP represented by the GROUPEMENT DES INDUSTRIES SIDERURGIQUES LUXEMBOURGEOISES, Société Co-operative, Luxemburg, and responsible for the Firms and Companies enumerated in Appendix I:¹

the GERMAN GROUP represented by the STAHLWERKS-VERBAND AKTIENGESSELLSCHAFT, Düsseldorf, and responsible for the Firms and Companies enumerated in Appendix I:¹

¹ Not printed

the aforesaid Groups being represented collectively by the ENTENTE INTERNATIONALE DE L'ACIER, Luxemburg, hereinafter called the "E.I.A."

ARTICLE I

Object. The aim and object of this Agreement is to establish collaboration between the Federation and E.I.A. in respect of their general export sales and the protection of their respective interior markets.

It is the intention of the contracting parties to conclude sectional Agreements in respect of iron and steel products other than those enumerated in Article 3, as soon as the interested producers are grouped in the different countries.

ARTICLE 2

Duration. This Agreement shall come into force on 8th August, 1935, provided that, in the meantime, arrangements shall have been made by the United Kingdom Government whereby the rate of duty applicable to imports covered by the Agreement may be reduced wherever practicable to not more than 20 per cent *ad valorem*. This Agreement shall continue subject to the provisions of Article 3 (a) and Article 4 (e) hereof and to any modifications that may be found necessary and agreed between the parties from time to time for a period of five years, but either of the contracting parties shall have the right to terminate the Agreement on the 7th August, 1938, upon giving notice of their intention so to do in writing to the other party not later than the 7th February, 1938.

ARTICLE 3

Exports. (a) Sectional Export Agreements—in so far as they are not already concluded—shall be concluded in respect of the following products—

- (1) IRMA material:
- (2) Semis (ingots, blooms, billets, slabs, sheet bars, tinplate bars):
- (3) Joists, channels, and broad flanged beams:
- (4) Merchant bars and sections:
- (5) Thick plates ($\frac{3}{16}$ in. and up):
- (6) Medium plates ($\frac{1}{8}$ in. and less than $\frac{3}{16}$ in.):
- (7) Large flats or universals (6 in. and up):
- (8) Hoops and strip:
- (9) Tube strip:
- (10) Wire rods, IWECO, and other wire products:

(11) Tinplates:

(12) Sheets less than $\frac{1}{8}$ in., black and galvanized.

and all sectional Agreements shall be deemed to be an integral part of this Agreement.

The sectional Agreements still to be concluded shall be operated in full from the date of their completion, but in every case the operation of the export quotas for which they provide shall be made to apply from a date not later than the 8th of August, 1935.

In the event of failure to reach a sectional Agreement in respect of any of the aforesaid products by 7th January, 1936, either party may, on giving three months' notice, terminate both this Agreement and such sectional Agreements as have been concluded prior to 7th January, 1936.

(b) The export rights of the contracting parties shall be secured by the application to the total exports in any product of the quotas fixed by the sectional Agreement for that product.

(c) If, during the first year of operation, the total exports of the United Kingdom, Germany, Belgium, France, and Luxemburg, under the sectional Agreements enumerated in (a) above exceed the corresponding total of exports for 1934, the following rules shall be applied for the apportionment of the excess—

(i) If the excess is less than or equal to 217,500 tons, it will be divided at the rate of $\frac{2}{3}$ for the Federation and $\frac{1}{3}$ for the E.I.A. The apportionment of any balance of the said $\frac{2}{3}$ remaining to be satisfied after the quotas of all the respective sectional Agreements have been met, shall be applied to the various products so far as practicable in the proportion that they have contributed to the increase of the exported tonnage except that any additional tonnage that would accrue in this way to rails, semis, or tinplates shall be taken up in the other products named in (a) above if either party so requires, and on a basis to be mutually agreed:

(ii) If the excess is more than 217,500 tons, the apportionment of a first quantity of 217,500 tons shall be made as stated in (i) above. The division of the tonnage exceeding this first quantity of 217,500 tons shall be made in accordance with the percentages as fixed in the sectional export Agreements.

This special disposition applies only to the first year of operation, and for the following years the apportionment shall be made in accordance with the percentages as fixed in the sectional export Agreements.

ARTICLE 4

Imports into the United Kingdom. (a) The Works situated in the countries represented by the E.I.A. shall be entitled to import into the United Kingdom under the conditions hereinafter provided a total of 670,000 tons made up of the products and quantities as shown hereunder during an initial period of 12 months from 8th August, 1935, and thereafter a total of 525,000 tons per annum as shown hereunder during each of the four periods of 12 months following—

	<i>Imports</i>	
	1935	<i>Each subsequent year</i>
IRMA material	Nil	Nil
Semis (ingots, blooms, billets, slabs, sheet bars, and tinsplate bars)	255,329	195,869
Joists, channels, and broad flanged beams	97,538	76,432
Merchant bars and sections (including iron bars)	172,948	135,521
Thick plates ($\frac{3}{8}$ in. and up)	35,810	30,635
Medium plates ($\frac{1}{8}$ in.— $\frac{3}{8}$ in.)		
Large flats or universals (6 in. and up)		
Black plates and sheets less than $\frac{1}{8}$ in. and galvanized sheets		
Hoops and strip	10,225	8,012
Tube strip	37,500 ¹	26,500 ¹
Wire rods, IWECO, and other wire products—		
(a) Wire rods	39,700	31,081
(b) IWECO products	20,950	20,950
Tinplates	Nil	Nil
Total	670,000	525,000

(b) Inasmuch as both parties are satisfied that the aforesaid importation into the United Kingdom with reduced rates of duty can only be operated satisfactorily and without detriment to the interests of their respective countries by the institution by the United Kingdom of a system of licensing, the Federation undertake to use their best endeavours to secure the institution of such a system for the products named at the earliest possible date.

(c) In order that the coming into force of this Agreement may not be delayed pending the establishment of a system of licensing and the conclusion of the sectional Export Agreements, the Federation will ask their Government to make the reduction of duties referred to in Article 2 above for a period of five months in the first instance. The E.I.A. undertake that

‡ Subject to verification of the imports of conduit strip in 1933 having been 13,500 tons and not 10,000 tons.

importation from their countries during that period shall not exceed the proper proportion of the respective tonnages prescribed in (a) above, except in so far as exchanges of one category for another may be agreed.

(d) The E.I.A. undertake to consult with the Federation as to prices and destination of sales and deliveries during the aforesaid temporary period of five months, and to consider the conclusion before the expiration of that period of permanent arrangements under which the Federation may, if they so desire, make collective purchase of the agreed importation on a basis that preserves as far as practicable established channels of distribution.

(e) In the event of failure—

(i) to continue the provision for reduced import duties for the full term of this Agreement: or

(ii) to institute a system of licensing of imports into the United Kingdom: or

(iii) to reach agreement in regard to the permanent arrangements referred to in (d) above:

either party may, on giving three months' notice, terminate both this Agreement and the respective sectional Agreements.

ARTICLE 5

Co-ordinating Committee. The contracting parties shall establish a Joint Co-ordinating Committee which shall be responsible for the proper carrying out of this Agreement, and for the general supervision of the various sectional Agreements.

ARTICLE 6

Arbitration. In the event of any dispute arising between the contracting parties as to either the interpretation or the application of this Agreement or the sectional Agreements it shall in the first instance be submitted to the Chairman of the Federation and the Chairman of the E.I.A. If no settlement is reached, the dispute shall be referred to arbitration, each Chairman nominating an Arbitrator within one month. If the Arbitrators cannot effect a settlement they shall, within a month, either agree upon an Umpire or request the Chairman of the International Chamber of Commerce to appoint an Umpire. The contracting parties undertake to accept without appeal the verdict passed by the Chairman, the Arbitrators, or the Umpire, as the case may be.

ARTICLE 7

The Agreement is written down both in English and French. It is stipulated that, in case of arbitration, the Arbitrators shall refer to the English text whenever the arbitration is applied for by the Federation and to the French text whenever the arbitration is applied for by the F.I.A.

Signed at London—31st July, 1935.

On behalf of British Iron and Steel Federation:

Dudley.

Andrew R. Duncan.

W. J. Larke.

On behalf of Entente Internationale de L'Acier:

A. Meyer.

Th. Laurent.

E. Poensgen.

A. D'Heur.

LETTER FROM BRITISH IRON AND STEEL FEDERATION TO THE
PRESIDENT OF THE BOARD OF TRADE

31st March, 1936

SIR,

At a Meeting of the Council of the British Iron and Steel Federation held here on 19th inst. I explained to them that, in connection with the statutory imposition of a licensing system in respect of importations under our International Agreement there were certain assurances which it would be necessary for the Federation to give to you as President of the Board of Trade.

The Council unanimously agreed to undertake on behalf of the Federation—

(a) to use their best endeavours to secure that adequate supplies of suitable steel are at all times available to meet the reasonable requirements of British consumers, and to make arrangements, if circumstances so require, for the importation of such additional tonnages as the Import Duties Advisory Committee may deem necessary in excess of those fixed by the Cartel Agreement:

(b) To make such arrangements for the disposal of the imports of foreign steel from the Cartel as will secure to the satisfaction of the Import Duties Advisory Committee the equitable distribution of such steel as to quantities, qualities, and prices, among all classes of consumers without

discrimination as to whether or not they are members of an affiliated Association:

(c) To undertake that membership of affiliated Associations shall be open to all firms who are eligible under their Rules and willing to observe them:

(d) To arrange that the prices of the agreed imports of foreign steel shall not be in excess of the prices charged for corresponding British steel to Members of the Federation; and in this connection to re-affirm the assurance as to the price policy of the Federation given in the Memorandum submitted to the Board of Trade, dated 14th March, 1935.

I have the honour to convey the foregoing assurance to you.

I am, Sir,

Your obedient Servant,

(Sgd.) *Andrew R. Duncan.*

The Rt. Hon. Walter Runciman, M.P.

AGREEMENT WITH THE UNITED STATES STEEL INDUSTRY

Extract from *The Financial Times*, 7th March, 1938

The approval expressed by the managing committee of the International Steel Cartel, at its meeting in Brussels on Thursday last, of the new arrangement made to implement the agreement with the United States steel industry should remove any boggy of a price war in overseas markets.

The central control office which is to be set up in London will have a close oversight on all export shipments, destinations, and prices. The committee will consist of four members, one representing the European cartel, another the British interests, and a third the United States. The fourth will be a neutral member—an accountant.

Before the agreement was reached last November it was reliably estimated that about 80 per cent of the total American steel export was controlled by the Steel Export Association of America. Recently, it is understood, more producers have become identified with that body, while it is anticipated that in the not distant future virtually all the exporters will adhere to it.

As a result of the visit paid to America last month by the Earl of Dudley, Mr. I. F. L. Elliot, and Mr. Spencer Summers, of the British Iron and Steel Federation, and M. Dieudonné, general manager of the International Steel Cartel, export quotas for certain markets will be elaborated and strengthened.

The American interests on their part had previously undertaken to observe the price schedules arranged by the cartel comptoires in respect of the main groups of products.

The continuation in the last two or three months of sporadic dumping from across the Atlantic, coupled with a general hesitancy on the part of buyers in different markets, which naturally resulted, combined to make certain members of the Cartel somewhat impatient.

It is now agreed on all sides that events since the meeting in Paris on 17th January have proved that the management committee of the Cartel took a wise and courageous step in not cutting prices all round at that juncture. In point of fact, since that meeting there has been no further falling-off in the export trade, while quotations, if anything, have tended to go ahead.

Indeed, following the Brussels meeting on Thursday, when it was unanimously resolved to enforce the closest discipline in regard to the observance of standard prices, it is significant that the tendency on the Brussels Iron and Steel Exchange, where the weakening influences had been to some extent concentrated, has been decidedly firmer. Quotations for joists, plates, and black sheets have stiffened.

At the same time, the report comes from New York that certain low export quotations have been withdrawn and the higher values which the Americans have agreed to operate in Cartel markets substituted. That development in itself suggests that effective progress is being made towards a reconstitution of the American Steel Export Association and towards a wider representation through that body of the various U.S. exporting firms.

The Cartel has now entered upon a new phase. . . .

The visit of three members of the British Iron and Steel Federation to the United States last month . . . enabled the American industry to reassert its willingness to co-operate on export policy and to implement fully and without any concessions the obligations undertaken by the American representatives at the Cartel meetings in November and December last.

APPENDIX II

TEXT OF THE WHEAT AGREEMENT

August, 1933

THE Governments of Germany, Austria, Belgium, Bulgaria, France, the United Kingdom of Great Britain and Northern Ireland, Greece, Hungary, Irish Free State, Italy, Poland, Roumania, Spain, Sweden, Czechoslovakia, Switzerland, the Union of Socialist Soviet Republics, and Yugoslavia, having accepted the invitation extended to them by the Secretary-General of the Monetary and Economic Conference on behalf of the Governments of Argentina, Australia, Canada, and the United States of America, to take part in a Conference to consider the measures which might be taken in concert to adjust the supply of wheat to effective world demand and eliminate the abnormal surpluses which have been depressing the wheat market and to bring about a rise and stabilization of prices at a level remunerative to the farmers and fair to the consumers of breadstuffs have agreed as follows—

ARTICLE I

The Governments of Argentina, Australia, Canada, and the United States of America agree that the exports of wheat from their several countries during the crop year, 1st August, 1933, to 31st July, 1934, shall be adjusted, taking into consideration the exports of other countries by the acceptance of export maxima fixed on the assumption that world import demand for wheat will amount during this period to 560,000,000 bushels.

ARTICLE 2

They further agree to limit their exports of wheat during the crop year, 1st August, 1934, to 31st July, 1935, to maximum figures 15 per cent less in the case of each country than the average out-turn on the average acreage sown during this period, 1931-33 inclusive, after deducting normal domestic requirements. The difference between the effective world demand for wheat in the crop year 1934-35 and the quantity

of new wheat from the 1934 crop available for export will be shared between Canada and the United States of America as a supplementary export allocation with a view to the proportionate reduction of their respective carry-overs.

ARTICLE 3

The Governments of Bulgaria, Hungary, Roumania, and Yugoslavia agree that their combined exports of wheat during the crop year, 1st August, 1933, to 31st July, 1934, will not exceed 50,000,000 bushels. This undertaking is made on the understanding that the aggregate may be increased to a maximum of 54,000,000 bushels if the Danubian countries find that such a supplementary quota is required for the movement of the exportable surplus of the 1933 crop.

ARTICLE 4

They further agree that their combined exports of wheat during the crop year 1934-35 will not exceed a total of 50,000,000 bushels, and recognize that the acceptance of this export allocation will not allow of an extension of the acreage sown to wheat.

ARTICLE 5

The Government of the Union of Socialist Soviet Republics, while unable to give any undertaking in regard to production of wheat, agree to limit their exports for the crop year 1933-34 to a figure which will be arrived at upon the completion of negotiations with the Government of the overseas wheat exporting countries. They also agree that the question of their export of wheat during the crop year 1934-35 shall be the subject of further negotiations with the wheat exporting countries represented upon the Advisory Committee.

ARTICLE 6 (ABRIDGED)

The Governments of the wheat importing countries in signing this instrument—

- I. Agree henceforth not to encourage any extension of the area sown to wheat, and not to take any governmental measures which would result in increased domestic wheat production.
- II. Agree to adopt every possible measure to increase wheat consumption and raise the quality of bread.
- III. "Agree that a substantial improvement in the price of wheat should have as its consequence a lowering of

Customs tariffs, and are prepared to begin such adjustment of Customs tariffs when" the conditions cited in Appendix A are realized. "It is understood that the rate of duty necessary to assure remunerative prices may vary for different countries, but will not be sufficiently high to encourage their farmers to expand wheat acreage."

IV. "Agree that in order to restore more normal conditions in world trade in wheat the reduction of Customs tariffs would have to be accompanied by modification of the general regime of quantitative restriction of wheat imports and accept in principle the desirability of such a modification. The importing countries are prepared to make effective alterations in 1934-35 if world prices have taken a definitely upward turn from the average price of the first six months of the calendar year 1933. . . . It is understood that this undertaking is consistent with maintaining the home market for domestic wheat grown on an area no greater than at present. . . .

"The obligation of the importing countries under this agreement are to be interpreted in the light of the following declaration—

"It is recognized that measures affecting the area of wheat grown and the degree of protection adopted are primarily dependent upon domestic conditions within each country, and that any change in these measures must often require the sanction of the legislature. The intention of this agreement is nevertheless that the importing countries will not take advantage of a voluntary reduction of exports on the part of the exporting countries, by developing their domestic policies in such a way as to frustrate the efforts which the exporting countries are making in the common interest, to restore the price of wheat to a remunerative level."

ARTICLE 7

A Wheat Advisory Committee is to be set up. (See Appendix B.)

APPENDICES (ABRIDGED)

A

1. "International wheat price" as mentioned in Article 6, paragraph III, of the draft agreement, shall be understood to mean a duty-free gold price c.i.f. on a world market. . . .

It is the average price of all parcels of imported wheat of all grades sold during each week in all the ports of Great Britain.

2. The minimum average gold price calculated as indicated above shall be 12 gold francs per quintal (63.02 gold cents per bushel).

3. The period referred to in Article 6, paragraph III, of the Agreement shall be 16 weeks.

4. Each country will decide upon its tariff adjustment in accordance with the principles enunciated in Article 6, paragraph III, of the draft agreement, and every considerable and lasting change in wheat prices shall be followed by an adjustment of tariffs proportionate to such change.

B

The Wheat Advisory Committee is to watch over the implementing of this Agreement only. "No question arises of establishing any permanent committee entrusted with the task of supervizing the production of and trade in wheat." It will only take decisions in cases defined in the agreements; and will be "primarily advisory in character."

MINUTE

A minute of the final meeting records that the Act of Agreement shall be deposited at the League Secretariat, and shall remain open for signature on behalf of other countries.

APPENDIX III

FRANCO-GERMAN POTASH AGREEMENT SIGNED AT PARIS,
29TH DECEMBER, 1926

(Translation)

BETWEEN the Deutsches Kalisyndikat Gesellschaft mit beschränkter Haftung, of Berlin, hereinafter called "the Syndicate," of the first part, and the Société Commerciale des Potasses d'Alsace, Les Mines Domaniales de Potasse d'Alsace, and the Société Anonyme des Mines de Kali Sainte-Thérèse, hereinafter called "the Société," of the second part, the following agreement has been concluded following the Lugano Agreement of 10th April, 1926.

Article I. To the Syndicate is reserved exclusive rights to sell in Germany, as well as in possible German colonies, protectorates and mandated territories. To the Société is reserved exclusive rights to sell in France, and in French colonies, protectorates and mandated territories. The two parties agree to take all necessary measures to prevent any exportations or re-exportations from these territories by a third party without special authorization. In the case where the reserved territories are used as countries of transit, the final destination of the goods will be placed under a rigorous supervision. The measures taken for this control will be communicated to the other party. The exclusive sales rights apply to the following potash salts—

1. Ores containing potash which are produced in the mines, crude salts in solid or dissolved form.

2. Chloride of potash, sulphate of potash, sulphate of potash-magnesia, the different potash salts used as fertilizers, and all potash salts, which as a general rule are produced from crude potash salts, as well as the residues of these products containing potash.

3. Mixtures of crude and refined salts, i.e. mixed salts.

Beginning 1st May, 1927, all exports of potash from the mines, in whatever form they may be, will be subject to the conditions of the present contract . . . and reckoned in terms of K_2O

The two parties shall come to an agreement, as soon as possible, with regard to the prices and conditions to be established for potash used in the manufacture of different preparations

for export, outside of territories reserved to both parties, as well as the form and method of control to be adopted. The exclusive sales rights conceded to France and Germany in the territories under their control carry with them for each party the prohibition to make deliveries of potash salts for export, in no matter what form, into the territory of the other. . . .

Article II. . . . In Germany, all of the potash mines or plants are obliged to adhere to the Syndicate from the beginning of their production. In France the owners of the mines adhering to the Société agree to bring about the adhesion to the Société of all new exploiters of potash mines or plants. . . . In case of the creation, in the countries reserved to the two parties, of new potash mines or new plants for the transformation of potash originating from the mines, their exports shall be included in the respective foreign sales quotas of the Syndicate and the Société. The signatories undertake to take all necessary measures to effect the reporting and control of the quantities of such potash salts and manufactured products which may be exported by new producers not parties to the present contract.

Article III. The two parties will jointly take the necessary measures for maintaining the regularity of the market.

Article IV. As from 1st May, 1926, the annual sale, outside of France, Germany, their colonies, mandated territories and protectorates, will be divided until an annual sale of 840,000 metric tons of K_2O is reached, in such manner that the Syndicate will receive 70 per cent and the Société 30 per cent. For any tonnage over an annual sale of 840,000 tons, the Syndicate will receive 50 per cent and the Société 50 per cent. It is, however, agreed that when the sale of 825,000 metric tons K_2O shall have been attained, the Société shall receive 3,000 tons of K_2O by right of priority above its fixed quota. If in the fourth year of the contract an annual sale of 840,000 of K_2O has not been reached, the Société shall receive for the fifth year of the contract a priority for the delivery of 8,000 tons of K_2O Should the sale of 840,000 tons of K_2O not be attained during the course of the fifth year, it is agreed that, in any case, from the beginning of the sixth year, the quantities over the highest annual tonnage reached during the first five years shall be divided in the proportion of 50 : 50.

Article V. The two parties have agreed to set up as rapidly as possible, for each country, joint organizations for the development of sales.

Article VI. The two parties shall mutually communicate within the three days following each of the ten-day periods of

each month the amount of the orders received and of deliveries made, either by rail or water, within each ten-day period. In case one of the parties exceeds its quota of orders in a country, at the end of one of these ten-day periods a readjustment shall be made, except by agreement to the contrary, immediately if possible, or at most not later than two months, by the transfer of a corresponding number of orders to the other party. In every case an exact readjustment of the quotas must be reached before the end of the season and contract year (30th April of each year. Only in the case where an exact compensation cannot be effected, due to forces beyond control, a readjustment of the quotas shall be made either by a complementary delivery to be made within a maximum delay-period of four months, or by payment by the party in excess to the party in deficit of a bonus of 15 per cent of the gross sale price obtained in the country under discussion.

Article VII. The selling price for each country shall be fixed by a common agreement between the directing boards of the two parties on the basis of the proposals presented by the managing boards of the sales organizations, which should take into account the actual conditions prevailing in each country at the time. These prices shall be established by taking into consideration cost prices on the one hand, and, on the other hand, in such a manner as to allow the development of the use of potash for agriculture and industry in each country.

Article VIII. The collaboration of the Syndicate and the Société has as its aim the development of the sale of potash according to the needs of the various countries, the realization of economies in general expenses, and the avoidance of unnecessary increases of prices for the consumer. The division provided for in Article IV does not in any way prevent the two parties from coming to a special agreement to effect changes from one country to another if such measures appear to them desirable from a practical point of view.

Article IX. A Commission of Control shall be constituted, composed of members one-half of whom shall be chosen by each of the two parties. The members of this commission, who may act either in co-operation or separately, shall examine the accuracy of the declarations made by the two parties throughout the duration of the present contract, either at the head offices of the Companies or at the mines or in any other place. If certain findings of the commission are not recognized by one of the parties, the latter has the right to demand a new investigation by two persons chosen outside of the commission, and who, in case they disagree, shall have the right to designate

a board of arbitration. The members of the Commission of Control and the persons designated to proceed with a new investigation shall have the right to demand the assistance of representatives of the contracting parties. . . .

Article XII. In case of differences which may arise either directly or indirectly from the execution of the present contract, no recourse may be made to the jurisdiction of any ordinary tribunals. These differences shall be settled by arbitration. Arbitration shall be entrusted to an Arbitration Committee which shall be composed of two representatives of each party. The four arbitrators shall name a supreme arbitrator, and, if they cannot come to an agreement on the choice of this arbitrator, the President of the Arbitration Court at the Hague shall be asked to designate him. In case of an infraction duly established, the guilty party shall be called upon to pay a fine to the other party, the amount of which shall not exceed five times the value of the litigation, and, in the case of a second offence within the same year, ten times the value of the litigation for which the arbitration has been demanded.

Article XIII. The contract is made for a period of ten years from 1st May, 1926, with the provision that it may be cancelled at the end of the seventh year, provided one year's notice of cancellation has been given in advance. If this contract . . . is not denounced one year before the tenth year, it shall be prolonged by tacit renewal by five-year periods, if a notice of cancellation has not been given one year before the expiration of these periods. . . .

APPENDIX IV

NOTE ON THE ADMINISTRATION OF THE CONVENTION FOR THE DEVELOPMENT AND PROGRESS OF THE INTERNATIONAL INCANDESCENT ELECTRIC LAMP INDUSTRY

PHOEBUS COMPANY

In order to apply the terms of the Convention the Phoebus Company was formed with its seat at Geneva. Switzerland was chosen as the seat of the administering company in order to ensure as far as possible independence of the divergent laws of the various countries. The Phoebus Company acts as an administrative organ for the parties of the Convention, its capital being 500,000 Swiss francs. It acts as an intermediary for the exchange of methods of manufacture and for the acquisition of patents. All members of the Convention are partners in it. The partners undertake to transact their business in accordance with the terms of the Convention, and to obey the instructions of the controlling bodies. All obligations are subject to high penalties, the payment of which is guaranteed by the deposit of considerable sums by way of security, the actual amount depending on the business turnover of the individual partners.

ARBITRAL TRIBUNAL

For the settlement of disputes, a special arbitral tribunal has been formed, at the head of which is a Swiss professor of international reputation, having as his assessors a Swiss federal judge and a technical expert on international cartels. This arbitral tribunal gives a final award in all disputes and differences of opinion. The execution of arbitral awards is guaranteed by the fixing of high security.

CONTROLLING BODIES

The General Assembly meets as a rule once or twice a year. The members' right to vote depends on the amount of their share quota during the basic year, a vote being given for each million unit lamps. The small producers selling less than a million lamps may form groups among themselves.

The Administrative Board watches and directs the application of the Convention, and the committees mentioned below and the national assemblies of manufacturers may appeal to it in the first instance. In the measures it takes the Administrative Board must pay due heed to the decisions of the General Assembly and to the provisions of the Convention. It may,

however, take any administrative or executive measures which it deems necessary or expedient for the application of the Convention.

Besides the Administrative Board there is the *Executive Committee*, which at present consists of six members chosen from the Administrative Board. The Executive Committee takes decisions on current business, particularly financial affairs.

The Business Development Committee is composed of at least five members; at present there are seven. It takes decisions regarding the general policy of commercial development and informs the national assemblies of the general lines on which such questions should be solved. The term "business development" in this connection means the development of the use of electric light.

The Sales Committee, composed of at least five members—at present of seven—decides the general sales policy and gives the national assemblies general directions for the fixing of prices and conditions of sale in the various territories.

The Standardization Committee, consisting of five technical experts and five traders, takes decisions regarding standardization, including the simplification of manufacture and the reduction of cost prices. The final object of standardization is to bring about a complete uniformity as regards external form, internal structure, dimensions and lighting power of all products of the firms parties to the Convention. This aim, however, has hitherto been attained only as regards the lamps most commonly used for general lighting purposes.

Besides the Standardization Committee, there are also *purely* technical committees, which discuss special technical questions and recommend decisions for adoption by the competent Committees, the Administrative Board or the General Assembly.

In addition to the above-mentioned Committees, there are also special Advisory Committees, which assist the Director-General in legal questions and in any questions raised regarding the calculation of quotas.

NATIONAL ASSEMBLIES

In each country of origin and each country of the common territory there are national assemblies which have to settle local sales questions. Their duties consist primarily in fixing prices and conditions of sale. Their decisions are taken by a three-quarter majority.

APPENDIX V

STATEMENT ON THE REORGANIZATION OF THE EXECUTIVE CONTROL OF IMPERIAL CHEMICAL INDUSTRIES

(From *The Financial Times*, 7th March, 1938)

LORD MCGOWAN, the chairman, has relinquished the office of sole managing director.

The functions hitherto exercised by him in that capacity now devolve upon a Management Board of which he is chairman.

In future, Lord McGowan, as chairman of the company, will preside over meetings of the Board of the company and of the shareholders. As chairman of the Management Board, he will preside over meetings of that body. He will also confer and advise on all papers and reports as may be necessary with the executive directors.

The president, Mr. H. J. Mitchell, will act as the chairman's deputy, and will be available as far as possible for consultation and advice on matters of major importance or high policy by his colleagues on the Management Board.

The members of the Management Board are the executive directors and not less than two other directors nominated by the Board. . . .

The General Purposes Committee is ceasing to function, but a number of other committees are being established. The first of these will be appointed to consider higher range salaries and will consist of the chairman of the company, the president, the executive director responsible for personnel, and two other directors.

The day-to-day administration of the company's business will be divided into sections, each of which will be entrusted to an executive director. He will be assisted by a committee consisting of himself as chairman and three other executive directors.

There will be six executive committees dealing respectively with matters (a) commercial, (b) financial, (c) overseas, (d) personnel, (e) research, (f) technical.

The Committee Chairmen will report to the meetings of the Management Board, which are to be held at least once every two weeks. All matters outside the competence of their committees will be submitted for the decision of the Board.

The present Central Administration Committee is being replaced by a Groups Central Committee. This will co-ordinate the activities of the operating groups and tender advice to the Management Board on major policies of the company which may affect the groups.

APPENDIX VI

NOTE ON THE ORGANIZATION OF TURNER & NEWALL, LTD.

THE Turner & Newall organization "is built around the principle of a grouping by consent of allied interests and activities, based upon self-operating units (i.e. branch or controlled companies, each with its own Board of Directors, composed of men actually engaged and experienced in the business) linked up for purposes of co-operation and co-ordination through Executives of Branch and Controlled Company Directors with the board of your (i.e. the parent) Company, which confines its attention to general matters such as finance and policy. The advantages of this method of co-operative working will be obvious. Firstly, the pooling of knowledge and a general increase of achievement resulting therefrom; secondly, freedom and flexibility at the Branches and Controlled Companies; thirdly, co-operation and co-ordination of effort by means of monthly meetings of Directors and Controlled Companies; and fourthly, a general supervision and control from your own Board with the minimum of interference."¹

In addition to this more closely knit portion of its organization, Turner & Newall has formed a cartel, which includes asbestos manufacturers in at least ten European countries. Among its objects are the exchange of technical knowledge, the foundation of a Central Institute of Research (in Switzerland), the establishment of new factories in various countries, and the better organization of export business.

¹ Quoted by P. Ripley, *A Short History of Investment* (1934), page 202.

APPENDIX VII

AGREEMENT BETWEEN THE GOVERNMENTS OF FRANCE, THE UNITED KINGDOM, INDIA, THE NETHERLANDS, AND SIAM TO REGULATE PRODUCTION AND EXPORT OF RUBBER

London, *7th May*, 1934

THE Governments of the French Republic, the United Kingdom of Great Britain and Northern Ireland (hereinafter referred to as the Government of the United Kingdom), India, the Kingdom of the Netherlands, and the Kingdom of Siam;

Considering that it is necessary and advisable that steps should be taken to regulate the production and export of rubber in and from producing countries with the object of reducing existing world stocks to a normal figure and adjusting in an orderly manner supply to demand and maintaining a fair and equitable price level which will be reasonably remunerative to efficient producers, and being desirous of concluding an agreement for this purpose;

Have accordingly agreed as follows—

ARTICLE I

The obligations under this Agreement of the Government of the French Republic apply to French Indo-China; those of the Government of the United Kingdom to Ceylon, the Federated Malay States, the Unfederated Malay States, the Straits Settlements, the State of North Borneo, Brunei, and Sarawak; those of the Government of India to India (including Burma); those of the Government of the Kingdom of the Netherlands to the Netherlands Indies; and those of the Government of the Kingdom of Siam to Siam.

ARTICLE 2

For the purposes of this agreement—

(a) "Basic quotas" means the quotas referred to in Article 4 (a).

(b) "International Rubber Regulation Committee" means the Committee referred to in Article 15.

(c) "Control Year" means any calendar year during the continuance of this Agreement, or, in the case of the year 1934, the portion of that year between the date of the coming into

force of the regulation under Article 3 (b) and the 31st December, 1934.

(d) "Rubber plant" means and includes plants, trees, shrubs, or vines of any of the following—

(A) *Hevea Braziliensis* (Para Rubber).

(B) *Manihot Glaziovii* (Ceara Rubber).

(C) *Castilloa elastica*.

(D) *Ficus elastica* (Rambong).

(E) Any other plant which the International Rubber Regulation Committee may decide is a rubber plant for the purpose of this Regulation.

(e) "Rubber" includes (a) rubber prepared from the leaves, bark, or latex of any rubber plant and the latex of any rubber plant, whether fluid or coagulated, in any stage of the treatment to which it is subjected during the process of conversion into rubber, and latex in any state of concentration; and (b) all articles and things manufactured wholly or partly of rubber.

(f) "Replanting" or "replant" means planting during the period of the Regulation more than thirty rubber plants on any acre, or seventy-five rubber plants on any hectare of any area carrying rubber plants at the date the Regulation becomes operative.

(g) "Net exports" means the difference between the total imports of rubber into a territory during a period and the total exports of rubber out of that territory during the same period, provided that, notwithstanding the meaning attached to "rubber" elsewhere in this Agreement, imports or re-exports of articles and things manufactured wholly or partly of rubber and rubber consumed in the country of production shall not be included in arriving at net exports.

(h) "Owner" means and includes the proprietor occupier or person in the possession or in charge of a holding or such person as is, in the opinion of the Government concerned, the Manager or Agent of or entitled to act for or on behalf of such proprietor occupier or person.

(i) "Holding" means land on which rubber plants are grown which is in the ownership possession or occupation or is being worked by or under the control of the owner.

(j) "Person," unless the context otherwise requires, includes a company corporation partnership or other body whether corporate or not.

ARTICLE 3

- (a) The contracting Governments undertake to take such measures as may be necessary to maintain and enforce in their

respective territories, as defined in Article 1, the regulation and control of the production, export, and import of rubber as laid down in Articles 4, 5, 6, 8, 9, 10, 11, 12, and 13 of this Agreement, hereinafter referred to as "the regulation."

(b) The said regulation shall come into operation on the 1st day of June, 1934, and shall remain in force until the 31st of December, 1938, as a minimum period.

(c) Not more than twelve calendar months and not less than nine calendar months prior to the 31st December, 1938, the International Rubber Regulation Committee shall make a recommendation to the contracting Governments as to the continuation or otherwise of the regulation. The recommendation, if in favour of continuation, may suggest amendments to the regulation and include proposals relating to the other provisions of this agreement.

(d) Each contracting Government shall signify to the International Rubber Regulation Committee and to the other contracting Governments its acceptance or rejection of the recommendation referred to in the immediately preceding paragraph within three calendar months after the date of the receipt of such recommendation.

(e) If the said recommendation is accepted by all the contracting Governments, the contracting Governments undertake to take such measures as may be necessary to carry out the said recommendation. The Government of the United Kingdom shall in this event draw up and communicate to all the other contracting Governments a declaration certifying the terms of the said recommendation and its acceptance by all the contracting Governments.

(f) If the said recommendation is not accepted by all the contracting Governments, the Government of the United Kingdom may of its own motion, and shall, if requested by any other contracting Government, convoke a conference of the contracting Governments to consider the situation.

(g) Unless a recommendation to continue the regulation is accepted under paragraphs (d) and (e) above, or unless an agreement for continuation is concluded between the contracting Governments at the conference referred to in paragraph (f) above, the regulation and all the obligations arising out of this agreement shall terminate on the 31st December, 1938. If at the conference referred to in paragraph (f) above an agreement for continuation is concluded between some but not all of the contracting Governments, the regulation and all the obligations arising out of this agreement shall terminate on the 31st December, 1938, in respect of any

contracting Government not a party to the agreement for continuation.

ARTICLE 4

In the case of the Straits Settlements, the Federated Malay States, and the Unfederated Malay States and Brunei (which shall be deemed to constitute a single group of territories for this purpose), and of the Netherlands Indies, Ceylon, India (including Burma), the State of North Borneo, Sarawak, and Siam, the exports of rubber from the territory shall be regulated in accordance with the following provisions—

(a) The following annual quantities in tons of 2,240 English pounds dry rubber shall be adopted as basic quotas for each territory or group of territories for the control years specified—

—	1934	1935	1936	1937	1938
Straits Settlements, Federated Malay States, Unfederated Malay States, and Brunei	Tons 1 ¹ / ₂ of 504,000	Tons 538,000	Tons 569,000	Tons 589,000	Tons 602,000
Netherlands India	1 ¹ / ₂ of 352,000	400,000	443,000	467,000	485,000
Ceylon	1 ¹ / ₂ of 77,500	79,000	80,000	81,000	82,500
India	1 ¹ / ₂ of 6,850	8,250	9,000	9,000	9,250
Burma	1 ¹ / ₂ of 5,150	6,750	8,000	9,000	9,250
State of North Borneo	1 ¹ / ₂ of 12,000	13,000	14,000	15,500	16,500
Sarawak	1 ¹ / ₂ of 24,000	28,000	30,000	31,500	32,000
Siam	1 ¹ / ₂ of 15,000	15,000	15,000	15,000	15,000

(b) The International Rubber Regulation Committee shall fix from time to time for each territory or group of territories a percentage of the basic quota. Except in the case of Siam, the percentage of the basic quota fixed by the International Rubber Regulation Committee shall be the same for each territory or group of territories. In the case of Siam, the percentage of the basic quota for that territory shall not be less than 50 per cent for the year 1934, than 75 per cent for the year 1935, than 85 per cent for the year 1936, than 90 per cent for the year 1937, and 100 per cent for the year 1938.

(c) In each control year the quantity of rubber, which is equivalent to the percentage so fixed of the basic quotas of each territory or group of territories, constitutes for that territory or group of territories the "permissible exportable amount" for such territory or group of territories.

ARTICLE 5

The net exports of rubber from each territory or group of territories shall be limited to the "permissible exportable amount";

Provided that (1) in any control year the net exports may be permitted to exceed the "permissible exportable amount" by a quantity not greater than 5 per cent of that amount but, if the "permissible exportable amount" is exceeded in any year, the net exports for the immediately following control year shall be limited to the "permissible exportable amount" for such year less the amount of such excess for the previous year;

(2) If any territory or group of territories has exported in any control year less than its "permissible exportable amount," the net exports from such territories or group of territories for the immediately following year may be permitted to exceed the "permissible exportable amount" for such year by an amount equal to the deficiency below the "permissible exportable amount" for the previous year if such deficiency was not more than 12 per cent of such "permissible exportable amount," or equal to 12 per cent of such "permissible exportable amount" if the deficiency exceeded 12 per cent;

(3) In the case of the group of territories comprising the Straits Settlements, the Federated Malay States and the Unfederated Malay States and Brunei, the obligations arising under this Article may be executed (a) by controlling the actual production of rubber on the islands of Singapore and Penang (parts of the Straits Settlements), and (b) by controlling the exports of rubber from the remainder of this group of territories in such a manner that the total of the production of rubber during the control year in question in Singapore and Penang, together with the net exports of rubber during the said year from the remainder of the group of territories, shall not exceed the amount of the "permissible exportable amount" for the whole group of territories.

(4) For the purpose of the preceding proviso and of the provisions of Articles 9, 10, and 13 below, the entry of rubber from the remainder of the group into Singapore or Penang, or *vice versa*, shall be deemed to be an export or import as the case may be.

ARTICLE 6

In the case of French Indo-China, the Administration (i) shall maintain a complete record of all rubber leaving the territory and will establish such control as is necessary for this purpose, and (ii) on the happening of the events specified in paragraphs (a) or (b) below, shall cause the quantities of rubber specified in those paragraphs (taken in conjunction

with paragraphs (c) and (d)) to be delivered to the order of the International Rubber Regulation Committee in accordance with the provisions of paragraph (e) below—

(a) If in any control year the total quantity of rubber leaving French Indo-China for any part of the world shall exceed 50,000 tons (of 2,240 English pounds), but shall be less than the total quantity of unmanufactured rubber entering and retained in France in that year, a quantity of rubber shall be delivered equivalent to 10 per cent of the amount by which the total quantity of rubber leaving French Indo-China exceeds 30,000 tons.

(b) If in any control year the total quantity of rubber leaving French Indo-China exceeds the total quantity of unmanufactured rubber entering and retained in France in that year, a quantity of rubber shall be delivered equivalent to 10 per cent of the difference between 30,000 tons and the amount of the retained quantity aforesaid, together with an additional quantity corresponding to a percentage of the difference between the total quantity of unmanufactured rubber entering and retained in France, and the total quantity of rubber leaving French Indo-China for any part of the world during that year, such percentage being the average percentage of reduction of basic quotas which shall have been applied in that year in the territories specified in Article 4, excluding Siam.

(c) The quantities above mentioned or referred to shall be reduced for the control year ending the 31st December, 1934, to 7/12ths of those quantities.

(d) Provided, however, that the quantity of rubber to be delivered by French Indo-China in any control year shall not exceed a quantity equal to the percentage of the total quantity of rubber leaving French Indo-China corresponding to the average percentage of reduction of the basic quotas which shall have been applied in that year in the territories specified in Article 4, excluding Siam.

(e) The quantities of rubber referred to in paragraphs (a) and (b) above (taken in conjunction with paragraphs (c) and (d)) shall be notified to and agreed with the International Rubber Regulation Committee and delivered free of cost and all charges in the form of Singapore standard sheets or Singapore standard crepe, to the order of the International Rubber Regulation Committee in Singapore (or any other port or place selected by the International Rubber Regulation Committee) within three months after the expiration of the control year in question.

ARTICLE 7

The International Rubber Regulation Committee may dispose of all rubber delivered in accordance with the provisions of the preceding Article in such manner as it shall deem to be most beneficial to the objects which are envisaged in the provisions of the present Convention.

ARTICLE 8

The provisions of Articles 9, 10, 11, 12, 13, and 14 below apply to all the territories specified in Article 1 unless the contrary is expressly stated.

ARTICLE 9

The exportation of rubber from a territory or group of territories shall be prohibited under penalties that will be effectively deterrent, unless such rubber is accompanied by a certificate of origin duly authenticated by an official duly empowered for this purpose by the Administration of the territory or group. The penalties which may be imposed for this offence shall include (a) the destruction, and (b) the confiscation of the rubber. This Article does not apply to the islands of Singapore and Penang.

ARTICLE 10

The importation of rubber into a territory or group of territories shall be prohibited, under penalties that will be effectively deterrent, unless such rubber is accompanied by a certificate of origin duly authenticated by a competent official of the Administration of the territory or group of origin. The penalties which may be imposed for this offence shall include (a) the destruction, and (b) the confiscation of the rubber.

ARTICLE 11

(a) Every owner shall be prohibited, under penalties that shall be effectively deterrent, from having in his possession or under his control within a territory or group of territories at any time stocks of rubber exceeding 20 per cent of the quantity of rubber wholly grown and produced and removed from his holding during the preceding twelve months, or, alternatively, a quantity equivalent to twice the amount he is entitled to export during any month.

(b) The total of all other stocks of rubber in the territory shall be limited to a quantity not exceeding 12½ per cent of its "permissible exportable amount" for the control year. 6

(c) The preceding provisions of this Article do not apply to French Indo-China, India (including Burma), the islands of Singapore or Penang, Sarawak, or Siam, but in India (including Burma), Sarawak, and Siam the stocks of rubber shall be limited to normal proportions having regard to the amount of rubber internally consumed.

ARTICLE 12

(a) Except as provided in paragraphs (b) and (c) of this article, the planting of rubber plants during the period of the Regulation shall be prohibited absolutely under penalties that shall be effectively deterrent, such penalties including the compulsory eradication and destruction at the expense of the owner of the plants so planted.

(b) In Siam the planting of an area not exceeding in the aggregate 31,000 acres may be permitted.

(c) In all territories—

(i) The planting of small areas for exclusively experimental purposes may be permitted provided that during the period of the Regulation the total area of such permitted plantings in any territory or group of territories shall not exceed the equivalent of one-quarter of 1 per cent of that territory's or group's ascertained total area planted at the date of commencement of the Regulation.

(ii) The limited replanting of areas at present carrying rubber plants may be permitted upon the following conditions: An owner who desires to replant part of his holding shall be obliged first to notify the Administration of the territory or group of territories of his intention to replant and to give such particulars of the proposed replanting as may be required by the Administration, and he may then be permitted to replant in any control year to the extent set out in such particulars an area not exceeding 10 per cent of the total planted area of his holding in the territory or group of territories at the date of commencement of the Regulation, provided that the aggregate of the areas so replanted during the minimum period of the Regulation (specified in Article 3 (b)) shall not exceed 20 per cent of such total planted area of his holding.

ARTICLE 13

The exportation from the territory or group of territories of any leaves, flowers, seeds, buds, twigs, branches, roots, or any living portion of the rubber plant that may be used to propagate it shall be prohibited under penalties that shall be effectively deterrent.

ARTICLE 14

The contracting Governments and the Administrations of the territories or group of territories to which the present Agreement applies will co-operate with each other to prevent smuggling evasions and other abuses of the Regulation.

ARTICLE 15

(a) An International Committee, to be designated "The International Rubber Regulation Committee," shall be constituted as soon as possible.

(b) The said Committee shall be composed of delegations representing the territories or groups of territories to which the present Agreement applies, and the numbers of the respective delegations and the numbers of the persons who may be nominated as substitutes to replace members of delegations who are absent shall be as follows—

	<i>Members</i>	<i>Substitute Members</i>
(1) Straits Settlements, Federated Malay States, Unfederated Malay States, Brunei	4	2
(2) Netherlands India	3	2
(3) Ceylon	2	1
(4) India, including Burma	1	1
(5) French Indo-China	1	1
(6) State of North Borneo	1	1
(7) Sarawak	1	1
(8) Siam	1	1

(c) The Government of the United Kingdom shall be informed as soon as possible by the other contracting Governments of the persons first designated as members of delegations representing their respective territories. All subsequent changes in the membership of delegations shall be notified by communications addressed to the Chairman of the Committee.

(d) The Government of the United Kingdom will convoke the first meeting of the Committee as soon as possible, and may do so when the members of six delegations have been designated.

(e) The principal office of the Committee shall be in London and its meetings shall be held in London. The Committee shall make such arrangements as may be necessary for office accommodation and may appoint and pay such officers and staff as may be required. The remuneration and expenses of members of delegations shall be defrayed entirely by the Governments by whom they are designated.

(f) The proceedings of the Committee shall be conducted in English.

(g) The Committee shall at its first meeting elect its Chairman and Vice-Chairman.

(h) The Chairman and Vice-Chairman shall not be members of the same delegation.

(i) Meetings shall be convened by the Chairman, or in his absence by the Vice-Chairman. Not more than three calendar months shall elapse between any two consecutive meetings. An extraordinary meeting shall be convened at any time at the request of any delegation within seven days of the receipt of the request by the Chairman.

(j) The Committee shall perform the functions specifically entrusted to it under Articles 3 (c), 4 (b), 6, 7, 17, and 18 of this Agreement, and shall, in addition, collect and publish such statistical information and make such other recommendations to Governments relevant to the subject-matter of this Agreement as may seem desirable, in particular with reference to the disposal of any rubber which may come into the ownership of any Government as the result of the carrying out of Articles 9 and 10 of this Agreement. The Committee shall do all such other lawful things as may be necessary, incidental or conducive to the carrying out of its functions, and give such publicity to its actions as it may deem necessary or desirable.

(k) Each delegation shall vote as one unit. In case of delegations composed of more than one member, the name of the member entitled to exercise the vote shall be communicated in case of the first meeting of the Committee to the Government of the United Kingdom and thereafter to the Chairman of the Committee. The voting member may in case of absence, by communication to the Chairman, nominate another member to act for him.

(l) Each delegation shall possess a number of votes calculated on the basis of one vote for every complete 1,000 tons of the basic quota of the control year for the time being for the territory or group of territories represented by that delegation, and for the purpose of voting the territory of French Indo-China shall be deemed to have the following quotas, viz.—

						<i>Tons</i>
1934	.	.	.	.	.	22,500
1935	.	.	.	.	.	27,000
1936	.	.	.	.	.	34,000
1937	.	.	.	.	.	44,000
1938	.	.	.	.	.	52,000

(m) The presence of voting members of at least four delegations shall be necessary to constitute a quorum at any meeting ;

provided that if within an hour of the time appointed for any meeting a quorum as above defined is not present, the meeting may be adjourned by the Chairman to the same day, time, and place in the next week, and if at such adjourned meeting a quorum as defined above is not present, those delegations who are present at the adjourned meeting shall constitute a quorum.

(n) Decisions shall be taken by a majority of the votes cast; provided that—

(i) A decision fixing or varying the permissible exportable percentage of the basic quotas, or making or modifying or abrogating the rules of procedure shall require a three-fourths majority of the total votes which could be cast by all the delegations entitled to vote, whether such delegations are present or not;

(ii) The delegations representing French Indo-China shall only be entitled to participate in any discussion or vote on the permissible exportable percentage of the basic quotas if and so long as this territory is conforming to the Regulation on the basis of Article 6 (b).

(o) The Committee shall at the beginning of each control year draw up its budget for the forthcoming year. The budget shall show under appropriate headings and in reasonable detail the estimate of the Committee of its expenses for that year. The budget shall be communicated to the contracting Governments and to the Administrations of the territories or group of territories to which the present Agreement applies, and shall show the share of the expenses falling upon each territory or group of territories in accordance with the provisions of Article 16.

As soon as possible after the end of each control year, the Committee shall cause to be drawn up and audited by a duly qualified chartered accountant a statement of account showing the money received and expended during such years. The statement of account shall be communicated to the contracting Governments and to the Administrations of all territories or group of territories to which the present Agreement applies.

(p) The Committee may draw up, put into force, modify, or abrogate rules for the conduct of its business and procedure as may from time to time be necessary, provided that its rules of procedure shall be at all times in conformity with the preceding provisions of this Article.

ARTICLE 16

The expenses of the International Rubber Regulation Committee shall be defrayed by the Administrations of all

territories or group of territories to which the present Agreement applies, other than Sarawak and Siam. One half of the contribution for the whole year of each territory or group of territories, as shown in the budget drawn up by the Committee, shall be paid immediately on receipt of the budget by the contracting Governments, and the balance of such contribution not later than 6 months after this date. The contribution of each territory or group of territories shall be proportionate to their respective basic quota for the control year to which the budget relates. The basic quotas of French Indo-China for this purpose shall be those specified in Article 15 (l).

ARTICLE 17

(a) The Administrations of each of the territories or group of territories to which the present Agreement applies shall not later than the 1st January, 1935, communicate to the International Rubber Regulation Committee a declaration showing the total ascertained area in the territory or group planted with rubber on the 1st June, 1934.

(b) Each Administration will furnish to the International Rubber Regulation Committee all reasonable assistance to enable the Committee properly and efficiently to discharge its duties. Such assistance shall include all necessary statistical information and ample facilities to duly accredited agents of the Committee for the investigation of the manner in which the regulation is being carried out in the territory.

ARTICLE 18

The International Rubber Regulation Committee shall be empowered to, and shall within one month after the date of its first meeting, invite the body or bodies they consider most representative of rubber manufacturers to nominate three persons representative of such manufacturers, of whom one shall be representative of manufacturers in America, and such representatives shall form a panel who will be invited to tender advice from time to time to the International Rubber Regulation Committee as to world stocks, the fixing and varying of the permissible exportable percentage of the basic quotas, and cognate matters affecting the interests of rubber manufacturers.

ARTICLE 19

The contracting Governments, recognizing that a natural balancing of production and consumption can be hastened by research with a view to developing new applications and by

propaganda, declare that they will consider the possibility of (i) levying and collecting a uniform cess on the net exports from their respective territories during the period of the Regulation for the purpose of supporting such research and propaganda, and (ii) co-operating in the constitution of an International Rubber Research Board to plan the research and propaganda. If the proposals specified in this article are put into operation, no financial contribution will be expected in respect of Sarawak or Siam.

In witness whereof the undersigned plenipotentiaries, being authorized to this effect by their respective Governments, have signed the present Agreement and affixed thereto their seals.

Done at London this 7th day of May, 1934, in a single copy, which shall remain deposited in the archives of the Government of the United Kingdom, and of which duly certified copies shall be communicated by the Government of the United Kingdom to each of the other contracting Governments.

For the Government of the French Republic:

CH. CORBIN.

For the Government of the United Kingdom
of Great Britain and Northern Ireland:

JOHN SIMON.

P. CUNLIFFE-LISTER.

For the Government of India:

Subject to reservations annexed:

B. N. MITRA.

In signing this Agreement on behalf of my Government, I have been instructed to make the following reservations—

- (a) The accession of the Government of India is subject to the agreement and co-operation of rubber-producing "Indian States" in India, in which areas the Government of India has no power to maintain or enforce the restriction. The terms of the Inter-Governmental Agreement have been brought to the notice of the States concerned, and the Government of India has every reason to believe that they will act in accordance with its provisions.
- (b) In so far as legislative action will be necessary to implement the terms of the Agreement, the accession of the Government of India is subject to the approval of the Indian Legislature.

(Signed) B. N. MITRA.

7th May, 1934.

For the Government of the Kingdom of the
Netherlands:

R. DE MAREES VAN SWINDEREN.

For the Government of the Kingdom of Siam:
Subject to ratification:

PHYA SUBARN SOMPATI.

NOTES

1. A Protocol, dated 5th February, 1937, between the governments of France, the United Kingdom, India, the Netherlands, and Siam, amended Article 4 (a) of the above agreement to read as follows—

	1936	1937	1938
Netherlands India	500,000	520,000	540,000

2. In February, 1938, the Rubber Regulation Committee decided to recommend to the governments concerned the continuance of the rubber control scheme, subject to certain modifications, for a further period of five years. The total planted area to be covered by the Agreement is—

	<i>Acres</i>
Straits Settlements, Federated Malay States, Unfederated Malay States, and Brunei	3,273,100
Netherlands India	3,192,400
Ceylon	605,200
French Indo-China	314,200
India	128,000
Burma	104,400
State of North Borneo	126,600
Sarawak	215,800

The provisional modifications included the removal of the ban on new planting and the permission of new planting up to 5 per cent of total planted areas (equal to about 400,000 acres), while replanting can proceed freely until the end of 1940, when the position is to be reviewed. The deficit from the permissible exports which may be carried over to the following year is reduced from 12 per cent to 10 per cent. The stocks which estates of 100 acres and over are allowed to hold are raised from two months' to three months' stocks, and the basis of calculation is made more precise. It is suggested that the representatives of the United States manufacturers on the Advisory Panel should be increased to two. New basic quotas designed to conform as closely as possible to relative productive capacities over the five years, 1939-43,

have been worked out, and these are given in the following table—

	1939	1940	1941	1942	1943
Straits Settlements, F.M.S., U.M.S., and Brunei	632,000	(Long tons) 642,500	648,000	651,000	651,500
Netherlands India	631,500	640,000	643,500	650,000	651,000
Ceylon	106,000	107,500	109,000	109,500	110,000
India	17,500	17,750	17,750	17,750	17,750
Burma	13,500	13,750	13,750	13,750	13,750
State of N. Borneo	21,000	21,000	21,000	21,000	21,000
Sarawak	43,000	43,700	44,000	44,000	44,000
Siam	54,500	55,300	55,700	56,000	60,000
TOTAL	1,519,000	1,541,500	1,554,700	1,563,000	1,569,000

It will be seen that the new figures now leave only a negligible difference between Malaya and the Dutch East Indies ("Netherlands India"). The renewal of the agreement was supported by the Rubber Growers' Association, the Internationale Vereeniging voor de Rubbercultuur (Holland), the Union des Planteurs de Caoutchouc en Indochine (France), and by the Advisory Panel of Manufacturers.

APPENDIX VIII

NOTE ON THE INTERNATIONAL CONTROL OF TIN

ON 18th February, 1938, the International Tin Committee decided to reduce the quota for the second quarter of 1938 from 70 to 55 per cent of standard tonnages, without alteration of the existing arrangements for the transfer of parts of the quotas of Bolivia, Indo-China, and the Belgian Congo to Malaya, Nigeria, and the Dutch East Indies. The Committee evidently hoped, by this "cut," to raise the price once again to the region of £200 per ton.

PERMISSIBLE EXPORTS OF TIN (IN LONG TONS)

	Annual Standard Tonnages	Quotas in force, per quarter		
		April- December, 1937, 110%	January- March, 1938, 70%	April- June, 1938, 55%
Belgian Congo .	13,200	3,247	2,066	1,624
Bolivia .	46,490	12,637	6,570	5,162
French Indo-China .	3,000	825	467	450
Malaya .	71,940	19,784	14,321	11,252
Dutch East Indies .	36,330	9,991	7,232	5,682
Nigeria .	10,890	2,995	2,168	1,703
Siam .	18,000	5,151	3,278	2,775

APPENDIX IX

THE PRINCIPAL COMPANIES AND SUBSIDIARIES IN WHICH SOCIÉTÉ FINANCIÈRE DE TRANSPORTS ET D'ENTREPRISES INDUSTRIELLES HAS INTERESTS

Compagnie Générale d'Entreprises Electriques et Industrielles (Brussels).

Union pour l'Industrie et l'Electricité (Paris).

(a) Société de Transport d'Energie de l'Ile de France.

(b) Société de Transport d'Energie Rhône-Provence.

Société Générale d'Entreprises (Paris).

Compagnie Centrale d'Energie Electrique (Paris).

Société Intercommunale Belge d'Electricité (Brussels);

(a) Société d'Electricité du Bassin de Charleroi.

(b) Société d'Electricité du Borinage.

(c) Société d'Electricité du Nord de la Belgique.

(d) Société d'Electricité de l'Est de la Belgique.

(e) Société d'Electricité de l'Ouest de la Belgique.

Compagnie Electrique de la Loire and du Centre (Paris).

Energie Electrique du Nord de la France (Paris).

Société des Forces Motrices de la Truyère (Paris).

Berliner Kraft-und Licht (Bewag) A.G. (Berlin).

Gesellschaft für Elektrische Unternehmungen—Ludw.

Loewe & Co., A.G. (Berlin).

Elektrizitätswerk Schlesien A.G. (Breslau).

Electric and Railway Finance Corporation, Ltd. (London).

Société Centrale pour l'Industrie Electrique (Paris).

Société Auxiliaire pour la Fourniture d'Energie de Traction (Brussels).

Finelgaz (Brussels).

Société Internationale d'Energie Hydro-Electrique (Brussels);

(a) Barcelona Traction Light and Power Co., Ltd.

(b) Mexican Light and Power Co., Ltd.

(c) Mexico Tramways Co.

Société d'Electricité de Rosario (Brussels);

(a) Compañía General Argentina de Luz y Fuerza.

Transports, Electricité et Gaz (Brussels);

(a) Tramways d'Istanbul.

(b) Funiculaire entre Galata et Beyoglu,

(c) Société Anonyme Turque d'Electricité,

(d) Société Anonyme Turque de Gaz et d'Electricité à Istanbul et d'Entreprises Industrielles. •

Compagnies Réunies Gaz et Electricité (Lisbon);

(a) Société Estoril—Lisbon-Cascaes Electric Railway.

Compañia Hispano-Americana de Electricidad (Madrid);

(a) Compañia Argentina de Electricidad.

(b) Compañia de Electricidad de la Provincia de Buenos Aires.

(c) Compañia de Gas de la Plata.

(d) Compañia Exploradora de Usinas de Gas-Bernal.

Compagnie Générale de Tramways de Buenos-Ayres (Brussels);

(a) Anglo-Argentine Tramways Co., Ltd.

Centrales Electriques de l'Entre-Sambre et Meuse et de la Région de Malmédy (Auvelais);

(a) Compagnie d'Electricité des Ardennes.

(b) Union des Centrales Electriques de Liège-Namur-Luxembourg.

(c) Union des Centrales Electriques du Hainaut—Groupe-ment de la Sambre.

(d) Union Générale Belge d'Electricité.

Società Adriatica di Elettricità (Venice).

Société Anonyme des Tramways Provinciaux de Naples (Brussels).

Société Algérienne d'Eclairage et de Force (Algiers).

Société des Forces Motrices d'Algérie (Algiers).

Sociedad Financiera de Industrias y Transportes (Barcelona).

Société d'Electricité et de Mécanique (Ghent).

Compagnie Internationale pour la Fabrication Mécanique du Verre (Brussels);

(a) Société Anonyme "Glaces et Verres (Glaver)."

Charbonnages d'Hensies-Pommeroeul (Brussels).

Charbonnages des Chevalières et de la Grande Machine à Foe de Dour (Dour).

Société Belge de l'Azote (Ougree);

(a) Société des Produits Chimiques du Marly.

(b) Société Belge d'Electrochimie.

L'Oxyhydrique Internationale (Brussels).

APPENDIX X

EXTRACT FROM A PAMPHLET EMBODYING THE FINDINGS OF THE JOINT UNEMPLOYMENT COMMITTEE OF THE INTERNATIONAL FEDERATION OF TRADE UNIONS AND THE LABOUR AND SOCIALIST INTERNATIONAL (1930-31)

CARTELS AND MONOPOLIES

DURING recent years the elimination of free competition within the capitalist system, and the substitution of industrial concentration through cartels, trusts, and similar organizations, has proceeded at an accelerated pace. As a result such organizations now dominate important markets and are a vital factor in determining the quantity and distribution of goods produced and in fixing prices. Although this development has gone farther in some countries than in others, and has taken many different forms, it represents a tendency common to all industrial nations. Indeed, it now transcends national boundaries, for international cartels and consolidations are becoming more and more important.

The creation of complete or partial monopolies throughout the whole range of industry reinforces the economic power of the capitalist groups concerned, and, if allowed to operate unchecked, constitutes a grave menace to workers and consumers generally. At the same time it must be recognized that the growth of industrial consolidation means an advance towards an economically higher form of capitalism, and may provide a starting-point for the development of conscious planning of the economic system, such as the workers strive to secure in socialism. Thus, Labour cannot join in a general condemnation of economic developments which tend to eliminate competition, but must rather aim at the public supervision and regulation of monopolistic organizations. This is especially necessary since the price policy of monopolistic concerns often accentuates economic crises, and thus leads to increased unemployment. It is therefore recommended that—

1. Monopolistic concerns of all kinds should be placed under public supervision and regulation, through public institutions on which the trade union movement and the co-operative movement should be represented.

2. The supervision of prices should be one of the functions of such public institutions.

3. There should be, similarly, *international supervision* of international trusts and cartels, and while this presents practical difficulties it is considered that the task should be undertaken by an organization under the League of Nations, the

collaboration of the International Federation of Trade Unions and the international co-operative movement being, however, an essential feature in whatever method is adopted.

4. As a necessary preparatory measure, nationally and internationally, there should be the fullest publicity regarding the financial and other operations of monopolistic concerns, and both national legislation and an international convention for his purpose should be promoted.

APPENDIX XI

TRADE UNIONS INTERNATIONAL SECRETARIATS

	<i>Founded in</i>	<i>Members (1st Jan., 1936)</i>
International Federation of Bookbinders and Kindred Trades	1907	53,567
International Federation of Building and Woodworkers	1903	746,866
International Clothing-Workers' Federation	1893	491,455
International Federation of Commercial, Technical, and Clerical Employees	1920	454,570
Universal Alliance of Diamond Workers	1905	15,600
International Federation of General Factory Workers	1920	368,695
International Union of Federations of Workers in the Food and Drink Trades	1920	168,847
International Federation of Glassworkers	1908	20,000
International Union of Hairdressers	1907	7,000
International Federation of Hatters	1900	8,390
International Union of Hotel, Restaurant, and Bar Workers	1908	72,138 (1/3/35)
International Land Workers' Federation	1920	342,000
International Federation of Boot and Shoe Operatives and Leather workers	1907	160,808
International Federation of Lithographers and Kindred Trades	1896	25,000
International Metal Workers' Federation	1893	850,000
Miners' International Federation	1890	1,030,900
International Painters Federation	1911	30,000
Postal, Telegraph, and Telephone International	1911	171,650
International Federation of Pottery Workers	1905	30,536
International Federation of Employees in Public and Civil Services	1907	411,478
International Secretariat of Stone Workers	1903	48,923
International Association of Textile Workers	1894	497,164
International Secretariat of Tobacco Workers	1899	34,701
International Transport-Workers' Federation	1897	1,730,000
International Typographical Secretariat	1893	129,064
Teachers' International Trade Secretariat	*	111,950
Enginemmen and Firemen	*	23,230

* Information not available.

BIBLIOGRAPHY

LEAGUE OF NATIONS AND I.L.O. PUBLICATIONS

- Oualid, W.: *Social Effects of International Industrial Agreements* (C.E.C.P. 94: 1926).
- Macgregor, D. H.: *International Cartels* (C.E.C.P. 93: 1927).
- Wiedenfeld, K.: *Cartels and Combines* (C.E.C.P. 57 (1): 1927).
- Lammers, C.: *Review of Legislation on Cartels and Trusts* (C.E.I. 35: 1927).
- Benni, Lammers, Marlio and Meyer: *Review of the Economic Aspects of Several International Industrial Agreements* (E. 614: 1930).
- Benni, Lammers, Marlio and Meyer: *General Report on the Economic Aspects of International Industrial Agreements* (E. 736: 1931).
- Bouché, H.: *Economics of Air Transport in Europe* (Air Transport Co-operation Committee, 1935).
- L. N., Organization for Communications and Transit: *Inquiries into the Economic, Administrative, and Legal Situation of International Air Navigation* (1930).
- Ohlin: *The Course and Phases of World Economic Depression* (1931).
- Hirsch, J.: *National and International Monopolies from the Point of View of Labour* (1926).
- Grossman, E.: *Methods of Economic Rapprochement* (1926).
- Décugis, Olds and Tschierschky: *Review of the Legal Aspects of Industrial Agreements* (1930).
- The Agricultural Crisis* (1931).
- The Social Aspects of Rationalization* (1931).
- Temporary Mixed Commission: *Report of a Sub-committee* (L.N. Document A. 81, 1921).

BRITISH GOVERNMENT PUBLICATIONS

- Report on Industrial Conditions in the Iron and Steel Industries in France, Belgium, Luxemburg, and Germany* (Cmd. 3601: 1930).
- Third Report of the Dyestuffs Industry Development Committee* (Cmd. 4191: 1932).
- (Balfour) Committee on Industry and Trade: *Survey of Metal Industries* (1928).
- (Balfour) Committee on Industry and Trade: *Survey of Textile Industries* (1928).
- (Balfour) Committee on Industry and Trade: *Factors in Industrial and Commercial Efficiency* (1927).
- Report of the Committee on Trusts* (Cmd. 9236: 1919).

294 INTERNATIONAL COMBINES IN MODERN INDUSTRY

- Report of the Royal Commission on Shipping Rings* (Cmd. 4668: 1909).
- Mr. Ormsby-Gore's Report on his Visit to Malaya, Ceylon, and Java in 1928* (Cmd. 3235).
- Ministry of Agriculture Report on the Sugar Beet Industry at Home and Abroad* (1931).
- Report on Deferred Rebate System* (Cmd. 1802; 1923).
- Air Ministry and G.P.O.: *Empire Air Mail Scheme, Note by the Secretary of State, etc.* (Cmd. 5414: 1937).
- Department of Overseas Trade: *Report by Sir R. Cahill on Economic Conditions in France* (1934).
- Agreement to Regulate the Production and Export of Rubber* (Cmd. 4583: 1934); and *Protocol amending the Agreement* (Cmd. 5384: 1937).
- British Iron and Steel Industry: Memorandum on Clause 6 of the Finance Bill, 1936* (Cmd. 5201: 1936).
- Import Duties Advisory Committee: *Report on the Present Position and Future Development of the Iron and Steel Industry* (Cmd. 5507: 1937).
- Committee on Trusts: *Findings and Decisions of a Sub-committee on the Electric Lamp Industry* (Cmd. 622: 1920).
- Committee on Trusts: *Report on the Explosives Industry, by a Sub-committee* (Cmd. 1347: 1921).
- Report on Dyes and Dyestuffs* (Cmd. 1370: 1921).
- International Agreement regarding the Regulation of Production and Marketing of Sugar* (Cmd. 5461: 1937).
- Papers relating to the International Tin Control Scheme* (Cmd. 4825: 1935).
- Royal Commission on the Private Manufacture of and Trading in Arms: *Report* (Cmd. 5292: 1936) and *Minutes of Evidence* (1935-36).

FOREIGN GOVERNMENT PUBLICATIONS

- Report of the U.S. Commissioner of Corporations on the Tobacco Industry* (Part I).
- U.S. Dept. of Commerce: *The International Cartel Movement* (1928).
- Committees (various) of the U.S. Senate: *Reports and Evidences* (numerous volumes) on *Armaments, Munitions of War, etc.*

OTHER PUBLICATIONS

(a) Books and Pamphlets

- Barnes, L.: *The Duty of Empire* (1935).
- B.E.A.M.A.: *Combines and Trusts in the Electrical Industry; the Position in Europe in 1927* (1927).
- Brockway, A.: *The Bloody Traffic* (1933).

- Clapham, J. H.: *An Economic History of Modern Britain*, Vol. III (1938).
- Conte, R.: *Les Ententes Industrielles* (International Chamber of Commerce Brochure No. 46).
- Culbertson, W. S.: *International Economic Policies* (1925).
- Davies, Lord: *The Problem of the Twentieth Century* (2nd Edn., 1934).
- De Hevesy, P.: *Le Problème Mondiale du Blé* (1934).
- Donaldson, J.: *International Economic Relations* (1929).
- Duboscq, A.: *Le Conflit Contemporain des Houillères Européennes* (1936).
- Du Pont, B. G.: *E.I. Du Pont de Nemours & Company; A History, 1802-1902* (1920).
- Engelbrecht and Hanighen: *Merchants of Death* (1934).
- Faure, P.: *Les Marchands de Canons contre la Paix* (1932).
- Fitzgerald, P.: *Industrial Combination in England* (1932).
- Garnsey, G.: *Holding Companies and their Accounts* (1931).
- Gautschi, A.: *The Aluminium Industry* (1925).
- Gutierrez, V.: *The World Sugar Problem, 1926-35* (1935).
- Hantos, E.: *Mitteuropäische Kartelle im Dienste des industriellen Zusammenschlusses* (1931).
- Herriot, E.: *The United States of Europe* (1930).
- Holland, W. L. (ed.): *Commodity Control in the Pacific Area* (1935).
- Jaccard, R.: *Les Syndicats industrielles en Suisse* (1925).
- Jenks and Clark: *The Trust Problem* (5th Edn., 1929).
- Knight, Barnes, and Flugel: *Economic History of Europe* (1927).
- Kossmann, W.: *Ueber die wirtschaftliche Entwicklung der Aluminiumindustrie*.
- Kranold, H.: *The International Distribution of Raw Materials* (1938).
- Lammers, C.: *Internationale Industriekartelle* (1930).
- Lange, E. G.: *Steinkohle, Wandlungen in der Internationalen Kohlwirtschaft* (1936).
- Launay and Sennec: *Les Relations Internationales des Industries de Guerre* (1932).
- Levy, H.: *Industrial Germany* (1935).
- Levy, H.: *The New Industrial System* (1936).
- Lewinsohn, R.: *The Profits of War through the Ages* (1936).
- Lewinsohn, R.: *The Career of Sir Basil Zaharoff* (1929).
- Liefmann, R. W.: *International Cartels, Combines, and Trusts* (1927).
- Liefmann, R. W.: *Cartels, Concerns, and Trusts* (1932).
- Macara, C.: *Getting the World to Work* (1922).
- Macgregor, D. H.: *Enterprise, Purpose, and Profit* (1934).
- Marquand, H. A.: *The Dynamics of Industrial Combination* (1931).
- Marshall, A.: *Industry and Trade* (1919).

- Menne, B.: *Krupp* (1938).
- Milne-Bailey, W.: *Trade Unions and the State* (1934).
- Myers, G.: *The History of the Great American Fortunes*, 3 vols. (1908-10).
- Newbold, J. T. W.: *The War Trusts Exposed* (1916).
- Noel-Baker, P. J.: *The Private Manufacture of Armaments*, Vol. I (1936).
- Perris, G. H.: *The War Traders* (1914).
- Plummer, A.: *The World in Agony* (1932).
- Plummer, A.: *New British Industries in the Twentieth Century* (1937).
- P.E.P. (Political and Economic Planning): *Report on the British Iron and Steel Industry*, Part IV (1933).
- P.E.P. (Political and Economic Planning): *Report on International Trade* (1937).
- Richardson, J. H.: *Economic Disarmament* (1931).
- Ripley, P.: *A Short History of Investment* (1934).
- Robbins, L. C.: *Economic Planning and International Order* (1937).
- Robertson, M. H.: *Krupps and the International Armaments Ring* (1915).
- Rowe, J. W. F.: *Markets and Men* (1936).
- Royal Economic Society: *Memorandas* Nos. 3, 17, 23, 24, 29, 34, and 69.
- Salt, A. E. W.: *Imperial Air Routes* (1930).
- Salter, A.: *Recovery* (1932).
- Sassenbach, J.: *Twenty-five Years of International Trade Unionism* (1926).
- Simpson, K.: *Introduction to World Economics* (1934).
- Stevens, W. S.: *Industrial Combinations and Trusts* (1913).
- Stevens, W. S.: *The Powder Trust, 1872-1912* (1912).
- Stocking, G. W.: *The Potash Industry* (1931).
- Tarbell, I. M.: *History of the Standard Oil Company* (1905).
- Tombs, L. C.: *International Organization in European Air Transport* (1936).
- Toynbee, A. J. (ed.): *Survey of International Affairs* (Annual).
- Union of Democratic Control: *The Secret International; Armament Firms at Work* (1932).
- Union of Democratic Control: *The International Industry of War* (1915).
- Wallace, D. H.: *Market Control in the Aluminium Industry* (1938).
- Wallace and Edminster: *International Control of Raw Materials* (1930).
- Wiedenfeld, K.: *Kartelle and Konzerre* (1927).
- Zettem, E.: *Les Maîtres de la France; Le Comité des Forges et la Classe Ouvrière* (1932).

(b) Periodicals

The Economist.

The Economist Commercial History (Annual).

The Economic Journal, June, 1937.

The Financial News.

The Financial Times.

The Manchester Guardian Commercial.

The Mining World.

The Fortnightly Review, December, 1931.

The Journal of Political Economy, October, 1920.

Quarterly Journal of Economics, November, 1913; February, 1917; November, 1932.

Scottish Geographical Magazine, Vol. XLIX, July, 1933.

The Statistical Journal, Parts I and III, 1930.

Stock Exchange Year Book.

Stock Exchange Official Intelligence.

INDEX

- ACETIC Acid Syndicate, 4
 Advantages of international combines, 182-3, 208-9
 Aims of international combines, 3, 182-3
 Air transport, international organization of, 215 ff.
 Allgemeine Elektrizitäts Gesellschaft (A.E.G.), 5
 Alum, combine to control (1771-3), 4
 Aluminium cartels, 21, 80-3, 171, 198-9
 Ammonia, sulphate of, 105
 Anglo-Persian Oil Co. Ltd., 7-9, 72
 Aniline Convention, 163
 Armament "rings" or combines, 224 ff.
 Armstrong-Whitworth & Co. Ltd., 236-7
 Artificial silk industry, *see* "Rayon"

 BANKS, international combination among, 11, 47, 230-1, 237, 239, 240
 Bismuth Syndicate, 4, 76
 Bone-glue cartel, 13, 73
 Borax, deposits and production of, 4-5
 ——— Syndicate, 4, 74
 Bowater's Paper Mills, 200-1
 British Sulphate of Ammonia Federation, 15, 106
 ——— Thomson-Houston Co. Ltd., 91
 Brunner, Mond & Co. Ltd., 56
 Buyers, international combines of, 73, 76

 CALCIUM Carbide Syndicate, 4, 71, 149
 "Cartels of conditions," 18
 Cement cartels, 5, 13, 92
 Central Europe, international cartels in, 12-14
 Chadbourne Plan for sugar industry, 25-9, 198
 Chemical industry, international combines in, 3, 13, 40-1, 57-60
 Chemicals and modern warfare, 225, 238
 Chile, nitrate industry of, 102 ff.
 Coal industry, 3, 64, 129-32
 Coats, J & P, 60
 Coke cartels, 13, 174-5
 Colebrooke, Sir George, 4
 Comité des Forges, 234-5
 Competition, imperfect, 1
 ———, intensification of, 14, 62, 73, 94, 99, 195-6
 ———, suppression or elimination of, 3, 149, 183-8, 195, 211
 Concerns, international, 2, 31, 39-41, 214
 Consumers and international combines, 184, 188-9
 Control of international combines, 209-11
 Copper industry, cartels in, 154-5, 191-6, 199
 Cotton industry, 60, 74
 ——— Spinners' and Manufacturers' Associations, International Federation of, 74

- Courtaulds Ltd., 35-6
 Cyanamide Syndicate, 17
- DEBENHAMS Ltd., 61
 Deferred rebates in shipping industry, 69-70
 Diamond industry, 93
 Disarmament and international armament combines, 245
 Discipline within international combines, 159-60
 Drahtkonzern, 87
 Drapery trade, *see* "Debenhams Ltd."
 Dumping and international combines, 182, 200
 Dunlop Rubber Co. Ltd., 53
 Du Pont de Nemours & Co. Inc., 39-40, 56-7, 226-7, 238, 244
 Dyestuffs industry, cartels in, 22, 41, 57, 92, 145-9
- ECONOMIC nationalism, 3
 Electric lamp cartels, 9, 86-92, 268-9
 Electrical industry, 3, 13, 39, 41, 54, 86-92
 Enamel ware cartel, 11
 English Sewing Cotton Co. Ltd., 60
 European Coke Cartel, *see* "Coke Cartels"
 — "Timber Exporters' Convention, 196-7
 Explosives manufactured by combines, 4-5, 39-40, 56, 226-7, 232
- FARBENINDUSTRIE (Germany), 22, 53, 57, 147, 238
 Film industry, 33, 135-6
 Ford Motor Co., 52
- GENERAL Electric Co., 54-5, 87-8
 — Motors Corporation, 15, 40, 57
 "Gentlemen's agreements," 3, 21
 Gesfürel-Loewe concern, 5
 Glass bottle industry, 9-10
 Glue, *see* "Bone-glue"
 Gramophone manufacturers, 47-8
- HIGH-COST producers, 185-6, 191
 Holding companies, 33-5, 61
 Home markets, reservation of, 96, 129, 149 ff., 184
 Hugenberg Konzern, 241
- I.G. FARBENINDUSTRIE, *see* "Farbenindustrie"
 Imperfect competition, 1
 Imperial Airways Ltd., 218-23
 — cartelization, 212-13, 221-3
 — Chemical Industries Ltd., 57-60, 146-7, 238, 270
 Incandescent lamp cartel, 9, 21, 86, 268-9
 International businesses, 49-61, 213
 — cartels, kinds and characteristics of, 2, 18-21
 — concerns, characteristics of, 2, 31, 39-41, 214
 — Nickel Co. of Canada, 57, 77-9, 154
 — Rail Makers' Association (IRMA), 10, 160-3
 — Scrap Convention, 76
 — Steel Cartel, 21, 110-13, 127-9, 154, 165-70, 247-59
 — Trusts, characteristics of, 2, 20, 32, 40-1, 48-9, 228

300 INTERNATIONAL COMBINES IN MODERN INDUSTRY

Iron and steel industry, international combines in, 5-6, 13, 110-13,
127-9, 165-71, 213, 234-5

JAPAN, war material for, 228, 230-1
Japanese "money-cliques" (Zaibatsu), 231-2

KRAFT paper cartel, 134
Kreuger & Toll, 49-51
—, Ivar, 49, 63
Krupp's, 226, 228-30, 233, 239, 244
Kuhlmann Co. (France), 22, 238

LAWS, national, and international combines, 96n, 97-8, 134-44, 190,
209
Lead Convention, 41
— Producers, International Association of, 15-16
Lever Brothers Ltd., 49, 56
Linoleum cartel, 70-1
Low-cost producers, 186, 191

MAGNESIA combine, 17
Mannesmann tube companies, 22
Markets, *see* "Home Markets" and "Quotas"
Match monopolies, 49-51
Matches, manufacture of, in British Empire, 213
Meat industry, combines in, 137-9, 213
Mercury Consortium, 101, 165, 190
Mirror-glass Syndicate, 17
Monopolistic tendencies of international combines, 14, 16-17,
187-8
Montecatini concern (Italy), 47
Morgan, J.P. & Co., 40, 237
Motor-car industry, 15, 40, 52-3, 61
Munitions, *see* "War, Munitions of"

NECKAR Salt Union, 3
Nestlé and Anglo-Swiss Condensed Milk Co., 46
Newspapers, control of, by armament combines, 241-2
Nickel industry, 76
Nitrate industry, international combines in, 11, 39, 102-10, 188
Nobel Dynamite Trust Co. Ltd., 4, 56, 226-7
— Industries Ltd., 232-3

OBJECTS of international combines, *see* "Aims"
Obstacles to formation of international combines, 129 ff.
Oil, an essential munition of war, 225
— from coal, 9
— industry, international combines in, 7, 71-2
Over-capitalization, 186
Over-production, 62, 71, 183, 211

PALESTINE Potash Ltd., 100
Paper manufacture and international cartels, 3, 13; *see also* "Pulp"
Patents, exchange of, 3, 18, 40, 62, 183
Planning, economic, 1-2

- Plastics industry, 237
 Potash industry, cartels in, 94-100, 149, 264-†
 Prices, control and regulation of, by combines, 3, 22, 83, 94, 109-10,
 117, 120, 126, 134, 171, 182-4, 192-5, 197 ff.
 Protection and international combines, *see* "Tariffs"
 Pulp, sulphite, for paper-making, 200-1
- QUEBRACHO (tanning) extract producers, 164
 Quinine Agreement, 17
 Quotas, 83, 112, 129, 134, 157-81, 199
- RAYON industry, international combines in, 35-8
 Rolled-wire cartel, 11, 12, 112, 196
 Rolls-Royce Ltd., 61
 Rothschild's (French bankers), 239, 240
 Roumanian oil industry, 71-2, 94
 Royal Dutch-Shell combine, 7, 72
 Rubber cartels, 175-81, 272-86
 —, synthetic, 188-9
 Russia, oil exports from, 71-3
 —, potash production in, 100
 —, war material for, 229-30
 —, wheat exports from, 122
- SCHNEIDER, 91, 230, 234, 236, 244
 Sewing cotton industry, 60
 Shipping industry, conferences or "rings" in, 65-70
 Singer Machine Co., 46
 Skoda Co., 230, 234, 244
 Soap manufacture, *see* "Lever Brothers Ltd."
 Société Financière de Transports et d'Entreprises Industrielles
 (Sofina), 5, 38, 288-9
 Spelter Convention, 41
 Standard Oil Trust, 8, 72, 137
 Standardization, 3, 18, 71, 182
 State action and international combines, 63, 124, 134
 Steel, *see* "Iron and Steel" and "International Steel Cartel"
 — rails, *see* "International Rail Makers' Association"
 — tubes, *see* "Tube Cartels"
 Substitutes in relation to combines, prices and consumers' demand,
 22-3, 83, 188-90
 Sugar industry, cartels in, 23-30, 198
 Sulphate of ammonia, *see* "Ammonia"
 Sulphur cartel, 124-5
 Swedish Match Co., 49
- TANNING extract, 164
 Tariffs and international combines, 125, 127-8, 129, 145-9, 190
 Tea cartel, 118-20
 Telegraph and telephone services, 52, 55
 Timber Exporters' Convention, European, 196-7
 Tin industry, international combination in, 16, 30, 113-18, 134,
 172-4, 199, 287
 Tinplate cartel, 112, 170
 Tobacco industry, 84-6
 Trade Associations, international, 128

302. INTERNATIONAL COMBINES IN MODERN INDUSTRY

Trade unions and international combines, 204, 206-7, 290-1

———, international organization of, 204-5, 292

Transport and international combines, 3, 63-4, 83, 215 ff.

Trusts, international, 2, 20, 32, 40-1, 48-9, 228

Tube cartels, 6, 21-2, 129, 155, 164, 196

Turner and Newall Ltd., 54, 271

UNEMPLOYMENT and international combines, 202-3

Unilever Ltd., 41-6

Union Cold Storage Co. Ltd., 213

United States and combines, 136-40

VICKERS Ltd. and associated companies, 225, 228, 230, 236-7,
239, 244

WAGE-EARNERS and international combines, 182, 201-7, 208

Wagon manufacturers' combine, 172

War, munitions of, 41, 224 ff.

Wheat Agreement, 120-4, 260-3

Wire netting cartel, 6

Woolworth, F. W. & Co. Ltd., 61

ZINC cartels, 126-7, 133, 190

